# CONSTRUCTION NEWS

PERSONALS, ENGINEERING SOCIETIES, ENGINEERING SCHOOLS, READERS' WANTS, INDUSTRIAL NOTES, PUBLICATIONS.

Supplement to ENGINEERING NEWS. New York, September 29, 1904.

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## PERSONAL.

Mr. George Lindsay has been elected City Engineer of Dayton, O.

Mr. Thomas H. Stryker, of Oneida, N. Y., has received the Democratic nomination for State Engineer and Surveyor of New York.

Mr R. M. Arango, M. Am. Soc. C. E., has been appointed a Consulting Engineer on the staff of Chief Engineer Wallace in the Panama Canal Construction.

Mr. John F. Wallace, M. Am. Soc. C. E., Chief Engineer of the Panama Canal, has returned to this country after a thorough inspection of the route of the canal.

Mr. M. S. Ketchum, Assoc. M. Am. Soc. C. E., has been elected Professor of Civil Engineering in the University of Colorado. Mr. Ketchum is a graduate of the University of Illinois.

Mr. Frederick G. Sykes has resigned as Electrical Engineer of the Schenectady Ry. Co., of Schenectady, N. Y., and will become General Superintendent of the Portland General Electric Co., of Portland, Ore.

Mr. Richard Lyman, Professor of Civil Engineering in the University of Utah, has returned to that institution after two years' leave of absence, most of which was spent in advanced study at Cornell University.

Mr. Rhoade Fisher, Jr., has been appointed 1st Assistant Engineer of the Province of Puerto Principe, Cuba. He will have charge of the surveys and construction of a water supply system for the city of Camagüey, Cuba.

Mr. J. M. Lee, Engineer and Superintendent of the Austin Division of the Houston & Texas Central R. R., has resigned, to become General Manager of the San Antonio & Gulf. He will be succeeded by Mr. W. L. Bisbee.

Mr. E. Sherman Gould, M. Am. Soc. C. E., of 220 West 57th St., New York City, left for the Republic of Mexico, Sept. 26, in the interest of an American company holding a concession for the water supply of a large Mexican city. He expects to return to New York by Nov. 1.

Mr. H. W. Parkhurst, M. Am. Soc. C. E., Engineer of Bridges and Buildings, Illinois Central Ry., has been appointed Consulting Engineer of Bridges and Buildings. Mr. F. H. Bainbridge becomes Engineer of Bridges, and Mr. A. W. Bellows succeeds the latter as Superintendent of Bridges.

Mr. Albert Ladd Colby, M. Am. Soc. C. E., Assistant to President of the International Nickel Co., 43 Exchange Pl., New York, has just returned to his office thoroughly recovered from an attack of pleura-pneumonia which he contracted in St. Louis last July while installing his company's exhibit in the Department of Mines and Metallurgy.

Mr. E. P. H. Harrison has resigned as Superintendent of Construction at Pittsburg, Pa., for the engineering department of the Baltimore & Ohio, and will engage in private business. He will be succeeded by Mr. J. L. Crider, Assistant Engineer in the general construction department, who has been transferred from Baltimore to Pittsburg.

Mr. William Black, formerly Chief Engineer of the South Park Commission, Chicago, has accepted the position of Chief Engineer for T. E. Hill & Co., contractors, Chicago. Mr. Black is also engineer for the asphalt paving of State St., which work is being done by the large property owners on that street instead of by special assessment.

Mr. J. L. Thompson, of Salt Lake City, Utah, Superintendent of Bridges and Buildings on the Rio Grande Western, has succeeded F. B. Clark in the same capacity on the Denver & Rio Grande, the latter having left that road to go to the Cincinnati, Hamilton & Dayton. Mr. C. S. Thompson will fill the position formerly occupied by Mr. J. L. Thompson.

## OBITUARY.

Ernest Izsaky, a civil engineer from Budapest, who was sent to this continent by the Austrian Government to secure information on the construction of canals, died suddenly at Coteau Landing, Que., Sept. 15.

Frank W. Whitlock, a retired civil engineer, died at his home in Great Barrington, Mass., Sept. 18, as the result of injuries sustained by falling down stairs. Mr. Whitlock was formerly City Engineer of Waterbury, Conn.

William A. Pratt, M. Am. Soc. C. E., Assistant to the Chief Engineer of the Pennsylvania R. R., died Sept. 19 at Philadelphia, Pa. Mr. Pratt was educated at Yale University and had been in the employ of the Pennsylvania R. R. since 1880. He was 50 years old.

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## ENGINEERING SOCIETIES.

### COMING MEETINGS.

INTERNATIONAL ENGINEERING CONGRESS.
Oct. 3 to 8, 1904. Held at St. Louis, Mo., under the auspices of the American Society of Civil Engineers. Secy., Chas. Warren Hunt, 220 W. 57th St., New York.
AMERICAN BOILER MANUFACTURERS' ASSOCIATION.
Oct. 4, 5, 6, 1904. Annual convention at St. Louis, Mo., Secy., J. D. Farasey, Forest St. and Erie Ry., Cleveland, O.
AMERICAN SOCIETY OF MUNICIPAL IMPROVEMENTS.
Oct. 4, 5, 6, 1904. Annual meeting at St. Louis, Mo. Secy., G. W. Tillson, Municipal Building, Brooklyn, N. Y.
AMERICAN STREET RAILWAY ASSOCIATION
AMERICAN RAILWAY MECHANICAL AND ELECTRICAL ASSOCIATION.
STREET RAILWAY ACCOUNTANTS' ASSOCIATION.
Oct. 10 to 15, 1904. Annual meetings at St. Louis, Mo.
RAILWAY SIGNAL ASSOCIATION.
Oct. 11, St. Louis, Mo. Secy., B. B. Adams, 83 Fulton St., New York.
ASSOCIATION OF RAILWAY SUPERINTENDENTS OF BRIDGES AND BUILDINGS.
Oct. 18, 19, 20. Annual meeting at Chicago. Secy., S. F. Patterson, Concord, N. H.
AMERICAN GAS LIGHT ASSOCIATION.
Oct. 19, 20, 21, 1904. Annual meeting at Washington, D. C. Secy., A. E. Forstall, 58 William St., New York, N. Y.
IRON AND STEEL INSTITUTE (Great Britain).
Oct. 24 to 26, 1904. Annual meeting at New York City. Secy., B. H. Brough, 28 Victoria St., London, S. W.
AMERICAN SOCIETY OF MECHANICAL ENGINEERS.
Dec. 6, 1904. Annual meeting at New York City. Secy., F. R. Hutton, 12 West 31st St., New York.
AMERICAN INSTITUTE OF ARCHITECTS.
Dec. 15 to 17, 1904. Annual meeting at Washington, D. C. Secy., Glenn Brown, Washington, D. C.

WESTERN SOCIETY OF ENGINEERS.—At the meeting in the society's rooms, Chicago, on Sept. 21, Mr. Leonce Battu read an exceptionally interesting paper on "The Utilization of Exhaust Steam in Low-Pressure Steam Turbines." An abstract of this paper is published elsewhere in this issue.

INTERNATIONAL ACETYLENE ASSOCIATION.—The seventh annual meeting was held at St. Louis, Sept. 14, 15 and 16, the sessions being held in the Education Building of the St. Louis Exhibition. The election of officers resulted as follows: President, Augustine Davis; Vice-President, A. C. Einstein; Secretary and Treasurer, Nelson L. Litten, Chicago.

ENGINEERS' CLUB OF PHILADELPHIA.—At the first meeting of the season, held on the evening of Saturday, Sept. 17, Mr. Henry Leffmann read a paper on "George Washington, Engineer." The paper was discussed by Mr. James Christie and others. A number of new members were elected, and a nominating committee was elected to decide upon nominations for officers for the coming year. At the next meeting, Oct. 1, 1904, Mr. Washington Devereux will present an illustrated paper on "Some Causes of Fires." Secy., J. O. Clarke.

RAILWAY SIGNAL ASSOCIATION.—The annual meeting of this association will be held at St. Louis on Tuesday, Oct. 11, 1904, beginning at 2 p. m. The place of meeting is the room of the St. Louis Railway Club in the east end of the Transportation Building on the World's Fair Grounds. The headquarters of the members while at the Fair are at the Inside Inn, near the southeast corner of the Exposition grounds. Members desiring rooms at the Inn should engage them direct. The Secretary of the Association announces that committee reports will be mailed to members about October 1. Secy., B. B. Adams, 83 Fulton St., New York City.

WESTERN RAILWAY CLUB.—At the meeting of Sept. 21, held at the Auditorium Hotel, Chicago, two papers were presented. One of these was on "The Relative Merits of Large Grates and Heating Surfaces and their Proportions," being an extract from a report presented at the last convention of the American Railway Master Mechanics' Association by the Committee on Coal Consumption in Locomotives. The other paper was on "Negative Work of Back Pressure and Compression," by Ira C. Hubbell, Purchasing Agent of the Kansas City, Mexico & Orient Ry. It presented a number of diagrams to show the economies resulting from the use of a modified type of valve gear which will retard the closing of the exhaust port and so reduce the compression and negative work.

AMERICAN SOCIETY OF CIVIL ENGINEERS.—Three papers were presented before the society at its regular meeting of Sept. 21, 1904. All three dealt with the same general subject: the two projected bridges over the East River at New York City, the Blackwell's Island Bridge and the Manhattan Bridge. The first two of the papers discussed the stress-calculation of statically-indeterminate structures as are the two bridges in question: "General Methods for the Calculation of Statically Indeterminate Bridges," by Mr. F. H. Cilley, and "Theory and Formulas for the Analytical Computation of a Three-Span Suspension Bridge with Braced Cable," by Mr. L. S. Moisseiff. These papers were not discussed at the meeting.

The third paper, entitled "A Rational Form of Stiffened Suspension Bridge," by Mr. Gustav Lindenthal, former Commissioner of Bridges of New York City, provoked some interesting discussion. The paper argues for the importance of securing maximum rigidity in a suspension bridge. In fact it lays down the principle that the excellence of any suspension-bridge design is measured by the rigidity of the structure, just as in case of a truss, or arch bridge. This principle was strongly attacked in the discussion. The paper also points out that, for economy of metal, the stiffening member of a suspension bridge should be deepest at the quarter points of the main span, and at the middle points of the anchor spans. This can be readily secured, the author implies, only with the braced-cable type of suspension bridge such as he designed for the Manhattan Bridge.

Mr. Wilhelm Hildenbrand in a lengthy discussion set up a principle diametrically opposed to the author's principle of rigidity. He pointed out that an essential difference between the erect arch and the inverted arch (or suspension bridge) is that the former will collapse unless held to its lines by bracing, while the latter is at all times in stable equilibrium. Good engineering must recognize and make full use of this difference, and must fully exploit the economy in material which this property of the suspension structure permits. Hence, Mr. Hildenbrand concludes, "a suspension bridge, if properly designed, should have the greatest possible flexibility compatible with adequate strength."

Mr. Joseph Mayer also took grounds quite opposed to those of the author. He asserted that the only merit of Mr. Lindenthal's Manhattan Bridge design is its aesthetic appearance, which is not properly shown in the published perspective drawings because the cross-bracing between the stiffening-trusses is omitted. He believes that a cantilever bridge could be built on the same lines as this design, but with better efficiency (however, the legislative authorization for the Manhattan Bridge specified a suspension structure.—Ed.). In a stiffened suspension bridge, economy under partial loading is attained by using shallow, flexible stiffening trusses. This economy is made more important by the fact that in a heavily-traveled city highway bridge partial loading may never be realized, and high rigidity is therefore not a paying investment. Mr. Mayer considers the author's design to involve an unreasonable amount of rigidity for highway use. For railway use, a three-span suspension bridge is not advantageous, and properly proportioned stiffening trusses give too little load to the cables. In the matter of hinging the stiffening trusses at the center, Mr. Mayer considers this the proper method; he would use a hinge in the wind-truss also, and use cradled cables. He commended the form of tower adopted by Mr. Lindenthal—hinged at the bottom—and pointed out that this form was retained in the recent redesign of the bridge.

Mr. R. S. Buck premised that bridge design is not wholly a question of mathematics, but is based largely on general considerations derived from experience. On present experience, the author's design can not be proved better than the usual design of suspension bridge, nor can the wire-cable type be condemned. Mr. Buck then took up in detail the arguments of the author, and criticized them adversely. He questioned the value and universal action of the great rigidity claimed by the author, questioned the asserted superiority of pin-connections in a statically-indeterminate structure, and claimed that the old and crude type of cable-band has proven an excellent attachment for the suspenders, while recent designs are even much ahead of the older type. He also considered the questions of time and cost of erecting the eyebar-cable bridge, and the total cost of the bridge, concluding that while there is no experience available, yet a reasonable estimate made the eyebar design at least 60% greater in cost (of superstructure.)

Mr. W. W. Crebore also made some remarks on the paper; he pointed out that the proposed North River Bridge and the Manhattan Bridge can not be fairly compared because the latter has a much higher ratio of live to dead load.

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## ENGINEERING SCHOOLS.

IOWA STATE COLLEGE.—The college has arranged a series of ten lectures to be delivered during the present college year by officials of the various railway systems operating in Iowa. The first lecture was delivered Sept. 14 by Judge J. C. Davis, Chief Attorney for Iowa of the C. & N. W. Ry. system, upon the subject, "The Relations of the Railways as Common Carriers to the State and Federal Governments." Mr. Davis treated the legal side of the relations of the railways to the Government and public from a historical point of view. Other dates and subjects for the course of lectures are as follows: Oct. 5, "Railway Accounting;" Oct. 26, "Tie and Timber Preservation;" Nov. 16, "Motive Power;" Jan. 4, "Relation of the Railways to the Producers;" Feb. 1, "Relation of the Railways to the Producers;" Feb. 22, "Signal Engineering;" April 12, "Maintenance of Way." The arrangements for this course of lectures have been made largely through the kindness of Mr. W. H. Whalen, Supt. C. & N. W. Ry., Boone, Iowa.

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## CIVIL SERVICE EXAMINATIONS FOR TECHNICAL POSITIONS.

DRAFTSMAN.—U. S. Civil Service Commission, Washington, D. C., from whom further information can be obtained, will hold an examination Nov. 9-10, at various places throughout the country, to fill a vacancy in the position of draftsman (architectural and structural steel) in office of engineer of the Third Light House District, Tompkinsville, N. Y. The salary is $100 per month.

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## CONSTRUCTION NEWS.

### PLANS AND SPECIFICATIONS ON FILE.

The following Plans (P.), Specifications (S.), and Bidding Sheets (B. S.), may be seen at the office of The Engineering News Publishing Co., 220 Broadway, New York:

| Bids close | Work. | Place. | On file. | See issue. |
|---|---|---|---|---|
| Sept. | | | | |
| Oct. | | | | |
| 1 | Floating pile driver | Wash., D. C. | S | 9-15 |
| *5 | Gunnison tunnel | Montrose, Colo. | P. & S | 8- 4 |
| 4 | Retaining wall, etc. | Boston, Mass. | P. & S | 9-22 |
| *6 | Boiler | Wilmington, N. C | P. & S | 9- 8 |
| 8 | Brick building | New Orleans, La. | S | 9-15 |
| 10 | Roads | Wellsboro, Pa | S. & B. S | 9-22 |
| *10 | Water-works | Maumee, O | S. & B. S | 9-15 |
| 12 | Bridges | Chicago, Ill | P. S. & B. S. | 9-22 |
| 15 | Foundry | Charleston, S. C | S | 9-15 |
| 15 | Dry-dock | Washington, D. C | S | 9- 1 |
| 15 | Towboat | Cuba | S | 8-18 |
| Dec. | | | | |
| *1 | Bridge | Manila, P. I | P., S. & B. S. | 7-28 |

*Work advertised in Engineering News.

NOTE.—We are desirous of securing specifications and bidding sheets (and plans when not too bulky) of pending work for file in our New York office for the benefit of contractors or others who may be interested in the work. If more sets than one are sent us we shall be pleased to distribute these to contractors who ask for them. When the work is advertised in Engineering News a note that the plans are filed with us will be added to the advertisement without cost.

### LIST OF CONTRACTS PENDING.

Bids close. Work. Place. See issue.

LIGHT, HEAT AND POWER PLANTS.

Oct. 1.Electric plant, Lexington, N. C........Sept. 22
Oct. 3.City lighting, Fargo, N. Dak..........Sept. 22
Oct. 4.Street lighting, Saratoga Springs, N. Y..Sept. 22
Oct. 4.Gas-holder, Richmond, Va..............Sept. 29
Oct. 4.Street lighting, etc, Tamaqua, Pa........Sept. 8
Oct. 18.Power house, Lincoln, Neb.............Sept. 29
Oct. 21.Bond sale, New Albany, Miss..........Sept. 29
Advertised, Eng. News, Sept. 29 to Oct. 13.

BRIDGES.

Sept. 29.Bridge, stone, Santa Fe, N. Mex........Sept. 22
Sept. 29.Bridge, steel, Green Bay, Wis...........Sept. 15
Oct. 1.Bridge, Oshkosh, Wis....................Sept. 15
Advertised, Eng. News, Sept. 15 and 22.
Oct. 1.Bridges, Cincinnati, O..................Sept. 22
Oct. 1.Bridge, abutment, Fremont, O..........Sept. 22
Oct. 3.Bridges, Brownstown, Ind...............Sept. 22
Oct. 3.Bridges, Vicksburg, Miss...............Sept. 22
Oct. 3.Bridge, Reedsville, Wis..................Sept. 22
Oct. 3.Bridge, wood, Rome, Ga.................Sept. 22
Oct. 3.Bridge, Santa Cruz, Cal.................Sept. 29
Oct. 3.Bridge, Delphi, Ind......................Sept. 29
Oct. 3.Bridges, Lebanon, Ind..................Sept. 29
Oct. 3.Bridge, etc., Portland, Ind..............Sept. 29
Oct. 3.Bridge, Los Angeles, Cal.................Sept. 29
Oct. 4.Bridges, steel, Brownstown, Ind.........Sept. 29
Oct. 4.Bridges, steel, Shoals, Ind.............Sept. 29
Oct. 4.Bridges, Monticello, Ind................Sept. 29
Oct. 4.Bridges, steel, Mt. Vernon, Ind..........Sept. 29
Oct. 4.Bridges, Lafayette, Ind...................Sept. 29
Oct. 4.Bridge, Riverside, Wash.................Sept. 22
Oct. 4.Bridge, Conconully, Wash.................Sept. 8
Oct. 5.Bridge, iron, Kittanning, Pa.............Sept. 15
Oct. 10.Bridges, Toledo, O.......................Sept. 22
Oct. 10.Bridge, San Luis Obispo, Cal...........Sept. 29
Oct. 10.Bridge, San Bernardino, Cal.............Sept. 29
Oct. 10.Bridge, Olympia, Wash..................Sept. 29
Oct. 12.Bridges, Cleveland, O....................Sept. 22
Oct. 12.Bridges, Chicago, Ill.....................Sept. 22
Oct. 13.Bridge, superstructure, Toledo, O.......Sept. 22
Oct. 14.Bridge, Vevay, Ind.......................Sept. 29
Oct. 15.Bridge, Prineville, Ore....................Sept. 29
Oct. 15.Bridges, Mansfield, O.....................Sept. 29
Oct. 15.Bridges, steel, Wichita, Kan.............Sept. 29
Oct. 30.Bridge, steel, Crookston, Minn..........Sept. 22
Nov. 4.Bridge, New Orleans, La.................Sept. 15
Advertised, Eng. News, Sept. 15 to Oct. 7.
**Dec. 1.Bridge superstructure, Manila, P. I......July 28**
**Advertised, Eng. News, July 28 to Dec. 1.**

BUILDINGS.

Sept. 29.Fireproofing, Berkeley, Cal..............Sept. 22
Sept. 29.Hotel, Boise, Idaho .....................Sept. 22
Sept. 29.Buildings, Ft. Leavenworth, Kan.........Sept. 8
Sept. 30.Hall, Johnson City, Tenn...............Sept. 1
Advertised, Eng. News, Sept. 1 to 22.
Sept. 30.School plans, Oakland, Cal.............Aug. 25
Sept. 30.Buildings, Seattle, Wash................Sept. 15
Sept. 30.High school plans, Pt. Arthur, Tex.......Sept. 22
Sept. 30.Gas fixtures, Montgomery, Ala...........Sept. 22
Sept. 30.School, etc., Chicago, Ill................Sept. 29
Oct. 1.Jail plans, Jonesville, Va................Sept. 29
Oct. 1.Gymnasium, Warrensburg, Mo.............Sept. 29
Oct. 1.Fair buildings, Columbus, O.............Sept. 29
**Oct. 1.Court house plans, Manitowoc, Wis......Aug. 18**
Oct. 1.School, Somerville, Mass................Sept. 1
**Oct. 1.Cut granite, Washington, D. C...........Sept. 8**
Oct. 3.Church, Florence, S. C...................Sept. 22
Oct. 3.Buildings, Ft. Monroe, Va................Sept. 29
Oct. 3.Court house, Columbus, Ga...............Sept. 29
Oct. 3.Office building, Wilmington, Del.........Sept. 29
Oct. 3.Court house repairs, L. I. City, N. Y....Sept. 29
Oct. 3.Heating apparatus, New York, N. Y.....Sept. 29
Oct. 4.City building, Palatka, Fla.............Sept. 29
Oct. 5.Dome repairs, Brooklyn, N. Y..........Sept. 29
Oct. 5.City hall repairs, New York, N. Y......Sept. 29
Oct. 6.School, Sioux Falls, S. Dak.............Sept. 29
Oct. 4.Post office foundation, Kingston, N. Y..Sept. 22
Oct. 5.Building repairs, New York, N. Y......Sept. 22
Oct. 5.Brick buildings, Portsmouth, N. H......Sept. 22
Oct. 5.Post office, Pekin, Ill...................Sept. 1
Advertised, Eng. News, Sept. 1 and 8.
Oct. 5.Building addition, San Francisco, Cal...Sept. 15
Oct. 6.School, Greenville, Miss.................Sept. 15
Advertised, Eng. News, Sept. 15 and 22.
Oct. 8.Brick building, New Orleans, La.........Sept. 15
**Oct. 8.Buildings, New Orleans, La.............Sept. 8**
Oct. 10.Public buildings, Lawton, Okla.........Sept. 1
Advertised, Eng. News, Sept. 1 to Oct. 6.
Oct. 10.Court house, Blakely, Ga...............Sept. 22
Oct. 10.Brick buildings, etc., Mohave City, Ariz.Sept. 22
Oct. 10.Post buildings, Port Townsend, Wash...Sept. 29
Oct. 11.Buildings, New Orleans, La.............Sept. 22
**Oct. 12.Post office, Fond du Lac, Wis...........Sept. 8**
Oct. 12.Lodge building, Philadelphia, Pa........Sept. 29
Oct. 15.Barrack, Ft. Slocum, N. Y...............Sept. 29
Advertised, Eng. News, Sept. 29 and Oct. 6.
Oct. 15.Remodeling jail, Dublin, Ga.............Sept. 29
Oct. 15.Brick building, Charleston, S. C........Sept. 15
Oct. 15.Foundry (mfg. plants), Charleston, S. C.Sept. 15
Oct. 16.Quarters, Fort Totten, N. Y...........Sept. 22
Advertised, Eng. News, Sept. 22 to Oct. 13.
Oct. 17.Government building, Portland, Ore......Sept. 22
Advertised, Eng. News, Sept. 22 and 29.
Oct. 17.Brick building, Ft. Myer, Va...........Sept. 29
Oct. 18.Post office, Nashua, N. H..............Sept. 22
Advertised, Eng. News, Sept. 22 and 29.
Oct. 19.Building, Columbus, O.................Sept. 29
Oct. 19.Hospital wiring, San Francisco, Cal.....Sept. 29
Oct. 24.Post office, Hammond, Ind.............Sept. 22
Oct. 26.Post office, Rock Hill, S. C.............Sept. 22
Oct. 25.Court house, Huntington, W. Va.......Sept. 22
Advertised, Eng. News, Sept. 22 and 29.
Oct. 27.Cut stone, Washington, D. C...........Sept. 29
Advertised, Eng. News, Sept. 29 to Oct. 20.
Nov. 1.School plans, etc., Birmingham, Ala......Sept. 15
**Nov. 2.Ventilating apparatus, Washington, D. C.Sept. 8**
**Advertised, Eng. News, Sept. 8 and 15.**
Nov. 7.Ventilating apparatus, Washington, D. C.Sept. 15
Nov. 10.Laboratory buildings, Washington, D. C.Sept. 22
Advertised, Eng. News, Sept. 22 to Nov. 3.
No date.Building materials, Mohave City, Ariz...Sept. 8

WATER SUPPLY AND IRRIGATION.

Sept. 29.Water-works and sewers, Emporia, Va..Sept. 8
Advertised, Eng. News, Sept. 8 to Sept. 29.
Sept. 29.Water pipe, New York, N. Y...........Sept. 15
Sept. 29.Stand-pipe, Spring Valley, Ill...........Sept. 15
Advertised, Eng. News, Sept. 15.
Sept. 30.Water-works, Parkers Prairie, Minn....Sept. 22
Sept. 30.Reservoir, Fort Meade, S. Dak..........Sept. 15
Advertised, Eng. News, Sept. 15 and 22.
Sept. 30.Laying pipe, Cincinnati, O..............Sept. 8
Sept. 30.Water-works extension, Eveleth, Minn..Sept. 29
Oct. 1.Water-works, Savannah, Ga..............Sept. 8
**Oct. 1.Water-works, Chili .......................Aug. 25**
Oct. 3.Water main, Fargo, N. Dak..............Sept. 29
Oct. 3.Pipe, Montgomery, Ala....................Sept. 29
Advertised, Eng. News, Sept. 29.
Oct. 4.Water-works dam, Huntington, Ind......Sept. 29
Oct. 4.Water-works, Marshall, Mo..............Sept. 29
Oct. 5.Boiler, pump, etc., Fort Totten, N. Dak..Sept. 22
**Oct. 6.Tunnel, etc., Montrose, Colo. ..............Aug. 4**
**Advertised, Eng. News. Aug. 4 to Oct. 6.**
Oct. 5.Laying water mains, New York, N. Y...Sept. 29
Oct. 10 Water-works, Maumee, O..................Sept. 15
Advertised, Eng. News, Sept. 15.
Oct. 11.Irrigation canal, Turlock, Cal..........Sept. 29
Oct. 11.Tank and trestle, Fort Ethan Allen, Vt..Sept. 29
Advertised, Eng. News, Sept. 29 and Oct. 6.
Oct. 11.Pipe, Camden, N. J.........................Sept. 29
Advertised, Eng. News, Sept. 29.
Oct. 11.Gate valves, pipe, etc, Atlantic City, N. J.Sept. 29
Advertised, Eng. News, Sept. 29 and Oct. 6.
Oct. 12.Fire service mains, New York, N. Y......Sept. 29
Oct. 12.Water-works, Covington, O..............Sept. 22
Advertised, Eng. News, Sept. 22 and 29.
Oct. 14.Water-works, Seaforth, Minn............Sept. 29
Oct. 15.Water-Works, Bordentown, N. J.........Sept. 22
Advertised, Eng. News, Sept. 22 and 29.
Oct. 17.Water-works, Minden, La.................Sept. 29
Oct. 17.Well, reservoir, etc., Delaware City, Del.Sept. 29
Advertised, Eng. News, Sept. 29 and Oct. 6.
Oct. 22.Water system extens'n, Ft. Douglas, Utah.Sept. 29
Oct. 28.Water distributing system, Prescott, Ariz.Sept. 29
Advertised, Eng. News, Sept. 29 to Oct. 27.
Oct. 31.Lead pipe, etc., Victoria, B. C..........Sept. 29
**Nov. 1.Water-works, etc., Summerside, P. E. I..Aug. 25**
Nov. 9.Pumping machinery, New Orleans, La....Sept. 1
Advertised, Eng. News, Sept. 1 to Nov. 10.
Nov. 17.Pumping engines, Chicago, Ill...........Sept. 22
Advertised, Eng. News, Sept. 22 to Nov. 17.
Nov. 23.Hydrants, New York, N. Y..............Sept. 29

*Write our advertisers when you intend to buy your supplies and machinery for improvements, or for carrying out your contracts. If you do not find what you want in our advertising pages write us for list of firms, and we will put you in communication with them at once.*

SEWERAGE.

Sept. 29.Sewer system, Watertown, N. Y........[illegible]
Sept. 30.Sewers, Milwaukee, Wis...............[illegible]
Sept. 30.Sewer, Keokuk, Ia.......................[illegible]
Sept. 30.Trunk sewer, Salem, Mass.............[illegible]
Advertised, Eng. News, Sept. 22.
Sept. 30.Sewer, Youngstown, O.................[illegible]
Sept. 30.Sewer, Albert Lea, Minn...............[illegible]
Sept. 30.Sewer system, Manasquan, N. J.......[illegible]
Sept. 30.Sewers, Omaha, Neb....................[illegible]
Advertised, Eng. News, Sept. 8 and [illegible]
Oct. 1.Sewer system, Savannah, Ga...........[illegible]
Oct. 3.Sewers, Topeka, Kan....................[illegible]
Oct. 3.Sewers, Norristown, Pa.................[illegible]
Oct. 3.Sewers, McKees Rocks, Pa.............[illegible]
Oct. 3.Sewers, Valley City, N. Dak...........[illegible]
Oct. 4.Sewers, Akron, O........................[illegible]
Oct. 4.Sewers, Knoxville, Ia...................[illegible]
Oct. 5.Sewage screens, Columbus, O.........[illegible]
Oct. 5.Sewers, Marion, O.......................[illegible]
Oct. 5.Sewers, Birmingham, Ala...............[illegible]
Oct. 5.Sewer system, Peoria, Ill...............[illegible]
Oct. 5.Sewer connections, W. Hoboken, N. J..[illegible]
Oct. 5.Sewer system, Delphos, O..............[illegible]
Oct. 5.Sewers, New York, N. Y...............[illegible]
Oct. 6.Sewers, Fargo, N. Dak.................[illegible]
Oct. 6.Sewer system, Downers Grove, Ill.......[illegible]
Oct. 7.Pipe sewers, Fulton, N. Y..............[illegible]
Advertised, Eng. News, Sept. 29.
Oct. 7.Sewer, New Albany, Ind...............Sept. [illegible]
Oct. 8.Drains, etc., Cincinnati, O.............Sept. [illegible]
Oct. 8.Sewer system, Ft Barrancas, Fla.......Sept. [illegible]
Oct. 10.Sewers, Cincinnati, O..................[illegible]
Oct. 17.Sewer system, Anadarko, Okla.........Sept. [illegible]
Oct. 19.Sewers, Cleveland, O.....................Sept. [illegible]
Oct. 20.Sewer pipe, etc., Washington, D. C....Sept. [illegible]
Advertised, Eng. News, Sept. 22 to Oct. 20.
Nov. 1.Sewerage, Summerside, P. E. I...........Aug. 25

STREETS AND ROADS.

Sept. 29.Paving, Petersburg, Va.................Sept. 22
Advertised, Eng. News, Sept. 22.
Sept. 29.Paving, brick, etc., New York, N. Y.....Sept. 22
Sept. 29.Pikes, Bellaire, O........................Sept. 8
Sept. 29.Paving, Toledo, O......................Sept. 29
Sept. 30.Paving, etc., Fayette, Pa..............Sept. 29
Sept. 30.Paving, vitrified brick, New Albany, Ind.Sept. [illegible]
Sept. 30.Paving, etc., Youngstown, O...........Sept. 29
Sept. 30.Sidewalks, Grand Island, Neb..........Sept. 15
Sept. 30.Road, Peale, Pa........................Sept. 22
Oct. 1.Sidewalks, concrete, Seattle, Wash.......Sept. 22
Oct. 1.Sidewalks, Mansfield, La...............Sept. 22
Oct. 1.Road repairs, Cincinnati, O............Sept. 15
Oct. 1.Sidewalk, cement, Cheviot, O..........Sept. 22
Oct. 3.Paving, asphalt, London, Ont...........Sept. 29
Advertised, Eng. News, Sept. 29.
Oct. 3.Sidewalks, New York, N. Y.............Sept. 29
Oct. 3.Roads, English, Ind......................Sept. 25
Oct. 3.Paving, vitrified brick, Webb City, Mo..Sept. 29
Oct. 3.Macadamizing, Defiance, O.............Sept. 15
**Oct. 3.Road, Yuma, Ariz..........................Aug. 11**
Oct. 3.Paving, etc., McKees Rocks, Pa........Sept. 22
Oct. 4.Paving, Clinton Heights, Pa.............Sept. 22
Oct. 4.Macadamizing, Cincinnati, O...........Sept. 29
Oct. 4.Road, gravel, Brownstown, Ind.........Sept. 29
Oct. 4.Rock, New York, N. Y....................Sept. 29
Oct. 5.Graveling, Riverside, Cal.................Sept. 29
Oct. 5.Macadamizing, Marion, O...............Sept. 29
Oct. 5.Macadamizing, Cincinnati, O............Sept. 15
Oct. 6.Paving, brick, Cincinnati, O..........Sept. 29
Oct. 6.Plaza, Brooklyn, N. Y...................Sept. 29
Oct. 7.Grading, Ft. Leavenworth, Kan.........Sept. 15
Oct. 8.Roads, Bedford, Ind.....................Sept. 29
Oct. 10.Paving, Omaha, Neb....................Sept. 22
Oct. 10.Road, Wellsboro, Pa......................Sept. 22
Oct. 10.Road, New Castle, Pa...................Sept. 22
Oct. 10.Paving, Toledo, O.........................Sept 22
Oct. 11.Roads, Albany, N. Y.....................Sept. 29
Oct. 12.Macadamizing, Cincinnati, O...........Sept. 22
Oct. 12.Paving, asphalt, New York, N. Y......Sept. 29
Oct. 12.Paving, asphalt, Brooklyn, N. Y.........Sept. 29
Oct. 13.Roads, gravel, Brownstown, Ind.........Sept. 22
Oct. 13.Paving, etc., McKees Rocks, Pa........Sept. 29
Oct. 14.Macadamizing, White Plains, N. Y......Sept. 29
Advertised, Eng. News, Sept. 29.
Oct. 17.Paving, Sedalia, Mo.......................Sept. 29
Oct. 20.Paving, etc., Cincinnati, O..............Sept. 29
No date.Sidewalks, etc., Brooklyn, N. Y........Sept. 22
Advertised, Eng. News, Sept. 22.
**No date.Paving, brick, Morris, Ill...................July 21**
**Advertised, Eng. News, July 21 to Oct. 13.**
No date.Sidewalks, concrete, Mansfield, La......Sept. 15

MISCELLANEOUS CONTRACTS.

Sept. 29.Dike work, etc., Albany, N. Y..........Sept. 22
Sept. 29.Ammunition hoists, Norfolk, Va.........Sept. 22
Sept. 29.Brick, Portland cement, New York, N. Y.Sept. 15
Sept. 29.Railroad rails, etc., Louisiana..........Sept. 29
Sept. 30.Dredging, Portland, Me....................Sept. 8
**Sept. 30.Steel lock gates, Louisville, Ky.........Sept. 1**
**Advertised, Eng. News, Sept. 1 to Sept. 29.**
Sept. 30.Mechanical stokers, Grand Rapids, Mich.Sept. 22
Advertised, Eng. News, Sept. 22 and 29.
Sept. 30.Excavation, Crete, Ill......................Sept. 15
**Oct. 1.Cut granite, Washington D. C...........Sept. 1**
**Advertised, Eng. News, Sept. 1 to Sept. 29.**
**Oct. 1.Telephone service, Toronto, Ont.........Aug. 25**
**Advertised, Eng. News, Aug. 24 to Sept. 15.**
Oct. 1.Earthwork, New Orleans, La...........Sept. 15
Oct. 1.Floating pile driver, Washington, D. C..Sept. 15
Oct. 1.Pier, Wildwood, N. J......................Sept. 29
Oct. 1.Railroad grading, Denver, Colo..........Sept. 29
Oct. 3.Boiler, Washington, D. C...............Sept. 29
Oct. 3.Dredging, Albany, N. Y..................Sept. 29
Oct. 4.Lamps, steel, etc., Washington, D. C....Sept. 15
Oct. 4.Retaining wall, Boston, Mass............Sept. 22
Oct. 5.Boilers, etc., Rochester, N. Y...........Sept. 29
Advertised, Eng. News, Sept. 29.
Oct. 6.Piers, New York, N. Y.....................Sept 29
Oct. 6.Steam shovels, etc., Washington, D. C..Sept. 15
Advertised, Eng. News, Sept. 15 to Oct. 6.
**Oct. 6.Engines, generators, etc., West Point, N.Y.Sept. 8**
**Advertised, Eng. News, Sept. 8 to Oct. 6.**
**Oct. 6.Boiler, Wilmington, N. C..................Sept. 8**
**Advertised, Eng. News, Sept. 8 to Oct. 6.**
Oct. 7.Riprap stone, New York, N. Y..........Sept. 29
Oct. 7.Fire alarm system, Ellis Island, N. Y....Sept. 29
Oct. 8.Drains, culverts, Cincinnati, O............Sept. 29
Oct. 10.Drainage canal, New Iberia, La.......Sept. 29
Oct. 11.Naval supplies, Washington, D. C.......Sept. 29
Oct. 11.Electrical supplies, Washington, D. C..Sept. 29
Oct. 11.Machine tools, Washington, D. C........Sept 15
Oct. 11.Dredging, Passaic, N. J.................Sept 15
Advertised, Eng. News, Sept. 15 to Oct. 13.
**Oct. 12.Embankment, Chicago, Ill...............Aug 18**
Oct. 12.Wharf, piers, etc., Jacksonville, Fla....Sept. 22
Advertised, Eng. News, Sept. 22 to Oct. 13
Oct. 12.Steamer, Washington, D. C.............Sept. 29
Advertised, Eng. News, Sept. 29 and Oct. 6
Oct. 13.Railroad franchise, California...........Sept. 29
Oct. 14.Fences and gates, Chattanooga, Tenn....Sept. 29
Advertised, Eng. News, Sept. 29 to Oct. 20.
**Oct. 15.Tug boat, Cuba..............................Aug 18**

15. **Plans for harbor, Sweden (Foreign)....April 21**
15. Completing dry-dock, Washington, D. C. Sept. 1
15. Dam, Hendrix, Pa....................Sept. 8
18. Crematory, Fort Sam Houston, Tex......Sept. 29
19. Elevator, Washington, D. C..............Sept. 29
19. Levee, Marksville, La...................Sept. 29
20. Dump cars, cement, etc., Panama........Sept. 22
Advertised, Eng. News, Sept. 22 to Oct. 20.
22. Railway construction, Brazil.............Aug. 25
22. Dredging, Washington, D. C..............Sept. 29
10. Docks, moles and forts, Chili.............Aug. 18
30. Timber, drainage, New Orleans, La......Sept. 29
Advertised, Eng. News, Sept. 29 to Dec. 1.
15. Battleship, Washington, D. C............Sept. 29

## RAILWAYS.

ARIZONA, NEW MEXICO & COLORADO.—Press reports quote Major W. F. Kinner, of Denver, Pres., who is in Salt Lake City perfecting the organization of the company, in part as follows: "The Arizona, New Mexico & Colorado is the parent company of the Arizona & New Mexico Fuel & Iron Co., both of which companies are chartered under the laws of the territory of Arizona, with a capitalization of $5,000,000 each. The railroad will run from the Southern Pacific connection in Cochise County, Ariz., to Durango, with a probable extension to Salt Lake City or a connection with the Rio Grande Western at or near Provo. The Utah end will open up the Paradox country and will cross the Grand River as near Moab as the engineers will determine. This Utah end, however, is a future consideration, as our primary object will be the building of a road from our coal field, situated in the western part of Socorro and Valencia counties, New Mexico, to the southern market, which includes all of the Arizona mining towns, such as Bisbee, Fairbanks, Clifton, Morenci, the Verdes, to say nothing of the Cananeas in Mexico. I confidently expect within two years to have at least 200 coke ovens going. Capitalization of the railroad company will be increased to $20,000,000 and the coal company to $10,000,000. The affairs of the two companies are now controlled by myself, E. D. R. Thompson and James P. Sprunt, of Salt Lake City; E. C. Countryman, of Walsenburg, Colo., and Thomas E. Fitzgerald, of St. Anthony, Idaho."

ARKANSAS, MISSOURI & KANSAS.—Arrangements are being made for right of way from Scammon to Joplin, Mo., via Galena, Mo. Albert N. Hoxie, of Boston, is Pres.; Jesse F. Wolfe, of Scammon, is Gen. Counsel.

ASTORIA & COLUMBIA.—John McGuire, Supt., Astoria, Ore., writes us that report is "an unfounded rumor" that this road will be extended six miles below Seaside, Ore., to rock quarries, or that survey has been completed.

CALIFORNIA.—Bids will be received by N. W. Collins, County Clerk, until Oct. 13, at Napa, Cal., for a franchise to construct and operate a steam railroad in Napa County, as applied for by the San Francisco & Napa Ry. Co.

CENTRAL VERMONT.—Contracts for grading proposed extension of this road from Bethel, Vt., to granite quarries, a distance of five miles, will be let at once and the work will be completed this fall, it is said. There will be no bridges or important trestles.

COLORADO.—Bids will be received on Oct. 1, in Denver, Colo., at offices of the "Moffat Road," Majestic Bldg., for grading of line between Arrowhead and Hot Sulphur Springs. Contract will be worth about $500,000. Bids also will be received for the construction of the 2-mile tunnel near James Peak. Cost, $2,000,000. David N. Moffat is Pres. of the Denver, Northwestern & Pacific Ry., at Denver.

COLORADO & SOUTHERN.—It is reported that a company to be known as the Denver & Interurban Ry. has been incorporated for the purpose of electrifying certain portions of the Colorado & Southern in the vicinity of Denver, including line from Denver to Boulder, 30 miles; the line from Denver to Idaho Springs, 37 miles; and the Lafayette branch. H. W. Cowan is Ch. Engr., Denver, Colo.

DELAWARE, LACKAWANNA & WESTERN.—It is reported that plans for improvements aggregating $1,000,000 are under consideration by Wm. H. Truesdale, Pres., and B. D. Caldwell, vice-Pres. Work includes passenger terminals on western section of Lackawanna and a large freight terminal in Buffalo, N. Y.

DENVER & RIO GRANDE.—A survey has been run for a branch from Sargeants to Whitepine, Colo., 10 1-5 miles, thence half a mile further to the iron ore deposits on the Lewis estate. The grade is 2 per cent. to Cosdon, seven miles out from Sargents, and 4 per cent. from there to the terminus. The ore deposits have recently been acquired by the Colorado Fuel & Iron Co. E. T. Yard, Denver, Colo., is Ch. Engr.

EGYPTIAN COAL RY.—Right of way is reported being secured for this proposed road, from Mount Vernon, Ill., to the Mississippi River. R. E. Renfro, Pres.; Vice-Pres., G. R. Huffman; Secy., J. B. Bundy; Gen. Mgr. and Attorney, Charles E. Hamilton. F. Hutchinson, Carbondale, Ill., is Ch. Engr.

GULF, HUTCHINSON & NORTHWESTERN.—T. G. Elbury, Ch. Engr., Hutchinson, Kan., writes that this line has been surveyed and right of way partly secured from Atwood through Achilles, Oberlin, Jennings, Lenora, Webster and Stockton, 125 miles. Capital is said to be promised. Contracts for construction between Oberlin and Jennings probably will be let in 30 or 60 days; no other contracts let. Eugene Tilleux, Hutchinson, Kan., is Pres.

KANSAS CITY, OKLAHOMA & HOUSTON.—P. W. Bean, promoter of this road, is reported as saying that 100 miles of line are under contract and the road will positively be built. Grading is in progress between South McAlester, Ind. T., and Red River.

LOUISIANA.—Proposals will be received at Baton Rouge until noon, Sept. 29, for 25-lb. new steel rails, 30 ft. lengths, with bars and spikes, for four miles of track, for delivery at Angola, La., within 60 days. Terms, cash, Jan. 10, 1905. C. Harrison Parker, Pres. Bd. of Control.

MUSCATINE NORTH & SOUTH.—This road is to be sold under foreclosure at Muscatine, Ia., on October 5. Chas. Howard, Recr.

NASHVILLE, CHATTANOOGA & ST. LOUIS.—Hunter McDonald, Ch. Engr., Nashville, is reported to have stated that this company has run preliminary survey for a branch from Woodland Mills, Tenn., to Columbus, Ky. When work will begin is not known, as the officers have not decided definitely whether or not the new line will be built. Other additions are said to be planned by Nashville, Chattanooga & St. Louis next year.

RICHMOND, FREDERICKSBURG & POTOMAC.—Contract for masonry, etc., for proposed freight yard, at Alexandria, Va., has been awarded, as mentioned last week. We are informed that contract for buildings has not yet been let. W. K. Martin, Alexandria, is Ch. Engr. The yards will be constructed by the Pennsylvania Railroad to accommodate the Pennsylvania, the Baltimore & Ohio, the Washington & Southern, the Richmond, Fredericksburg & Potomac, the Southern Railway, the Atlantic Coast Line and the Seaboard Air Line Railroads. Cost of the yards will exceed $1,000,000, probably amounting to $1,500,000.

ROCK ISLAND.—W. M. Whittenton, Division Supt., at Little Rock, Ark., is reported as saying that the Rock Island system will build extensive freight yards at Memphis, Tenn., on the Arkansas side of the river, when the Memphis, Louisiana & New Orleans Railroad (Rock Island system), over which the Rock Island will have trackage arrangements, is completed. W. L. Darling, Chicago, Ill., is Ch. Engr.

SOUTHERN INDIANA.—Work is in progress on the new line from Terre Haute to Chicago, that is being built to enable this railway carry its heavy coal traffic over its own rails. The road serves the Indiana coal region, as described in our issue of Feb. 25, and a large part of this traffic is now delivered to other roads to reach Chicago. The new line will be about 200 miles in length. President, J. R. Walsh, Chicago; Engineer, Geo. H. Cooke, Terre Haute, Ind.

TEXAS.—C. L. Tallmadge, of Chicago, is reported to have completed financial arrangements in New York for building a railway from Canyon City to San Antonio. Surveys have been completed and contracts for construction for 150 miles of line have been let. Same interests also have had surveys run for the East & West Texas Railroad, from El Paso to a point south of Canyon City.

TRANS-CONTINENTAL RY.—Surveys along the line from Lake Abitibi to Moncton, N. B., for this road, that is the easterly connection of the proposed Grand Trunk Pacific, will be begun at once, according to report of the Commissioners. This section has been divided into three districts, one extending from Moncton to the boundary line between the provinces of New Brunswick and Quebec; the second extending from the end of the first district to Clear Lake in the province of Quebec; and the third extending from Clear Lake to the western boundary of the province of Quebec. The subdivisions of this section have not yet been decided upon, and will not be until the preliminary surveys are completed or considerably advanced; 27 surveying parties are now being organized as rapidly as engineers and men can be obtained. They will be located as follows: Between Moncton and Chipman, two parties; Chipman to Boiestown, one party; Chipman towards Fredericton and St. John River, one party; between Boiestown and Plaster Rock, two parties; Plaster Rock to Grand Falls, one party; Edmundston to Connors, one party; Connors to Lake Pohengamook, one party; between Lake Pohengamook, that is the boundary between New Brunswick and Quebec, and to or near Chaudiere, four parties; one at each end and two in the centre; Quebec, including both sides of the proposed bridge, one party; from there on to Clear Lake, four parties, covering about 32 miles each; from Clear Lake to the boundary between Ontario and Quebec, and south of Lake Abitibi, and between that and the point where the southern route converges.

No action will be taken to make any surveys west of the province of Quebec until it is decided whether the surveys made by the Grand Trunk Pacific will be taken over. It is understood that this will be decided soon. The object in running two surveys from Chipman is to ascertain which of the routes is the better; the one directly across New Brunswick through Plaster Rock or the one down the St. John River, branching off somewhere above Fredericton. Surveys of the lines running north and south of Lake Abitibi, respectively, will bt made to secure the information whether it is desirable to run the railway north or south of that lake. The board hopes to be able to secure a sufficient number of engineers in Canada to carry on the work. It will require nearly 600 men to make up the 27 parties. It is proposed to carry on the survey work throughout the winter. Other surveying parties for the western end will be organized and put in the field as required. No divisional engineers will be appointed at present. Hugh D. Lumsden, Ottawa, Ont., is Ch. Engr.

YAZOO & MISSISSIPPI VALLEY.—Branch line will be built from Helm to Arnold, Miss. Work has been authorized. M. Gilleas, 3d Vice-Pres. and Gen. Supt., may be addressed at Memphis, Tenn.

## NEW INCORPORATIONS AND CHARTERS.

BURNING SPRINGS.—W. Va.—The Burning Springs Railway Co. has been incorporated to build a line from the Burning Springs coal mines in West Virginia to the Kanawha River. The incorporators are Wm. E. Hoskett, Leslie P. McCullough, John C. Sherwood, Victor S. Klick and Albertus C. Wolfe, all of Columbus, O.

BUREAU COUNTY MINERAL.—Ill.—This company has incorporated to build from the western line of Bureau County to the northern line of the same county. Capital stock, $15,000. Incorporators: Benjamin A. Dousman, W. D. Millard, J. B. Stubbs, G. E. Stolp and O. D. Aeppli, all of Chicago. This road is to connect with the Davis Junction line and affords entrance to 50,000 acres of land purchased by the Chicago, Milwaukee & St. Paul in the Illinois coal region. Work of extension is progressing rapidly, and the improvements on the roadbed from Rochelle to Flag Center and also to Davis Junction are being made. The line from Ladd to McNabb is finished, and the Bureau County line will be started at once.

CANADIAN VALLEY & WESTERN.—Okla.—A territorial charter has been granted to the Canadian Valley & Western Railway Co, headquarters at Norman, with $3,000,000 capital. The proposed line, 130 miles long, will run from Washita Junction, Okla., through Chickasha and Norman, down the South Canadian Valley to a connection with the Muskogee Union Railroad. Incorporators are: Dorst Carter, L. C. Woods, W. J. Blanchard and others, of Purcell; W. H. Johnson, G. M. Rowntz and others, of Norman.

CANTON & YOUNGSTOWN.—O.—Incorporated in Ohio to build from Canton through Stark, Mahoning and Portage Counties to Youngstown. W. A. Clark, W. L. Davis, J. J. Whitaker and others, of Canton, Ohio, are incorporators.

CHICAGO SOUTHERN.—Ill.—This company has been incorporated at Kankakee, Ill. Three routes are projected: From Chicago through Cook, Will, Kankakee, Iroquois, Vermilion and Edgar Counties to Paris, in Edgar County; from some point on Route 1, Vermilion County, southwesterly to East St. Louis; from some point on Route 2, Shelby County, to Marion County. Capital stock of the company is placed at $100,000. Edward C. Ritsher, John R. Montgomery, Louis E. Hart, Wm. T. Abbott and Richard W. Walsh, all of Chicago, Ill., are the incorporators.

LINCOLN & ONEIDA COUNTY.—Wis.—It is reported that this company is seeking a charter to build a railroad from Jeffris northeast 12 miles in Oneida County. Among the incorporators are said to be J. H. Woerden, E. N. Morrill and Edward Faust.

NEW MARTINSVILLE & MIDDLEBOURNE.—W. Va.—This company has been incorporated by T. P. Jacobs, O. L. Haught and others, of New Martinsville, to build a railroad from Steelton, W. Va, via New Martinsville and Middlebourne, along the Middle Island creek to the mouth of McElroy river, to its main fork, and thence by the most practicable route to Salem, in Harrison County, about 40 miles. Rights of way will be secured at once.

OKLAHOMA, TEXAS & GULF.—Tex.—Company has filed its charter in Texas to build a line from Wright's Landing, on the Red River, to a point north of and near Longview, via Clarksville through the counties of Red River, Bowie, Titus, Morris, Cass, Camp, Upshur, Marion, Harrison and Gregg, about 100 miles. Headquarters will be at Clarksville, Tex. Survey is in progress. The line in Indian Territory will extend from Atoka to connect with the Texas division at the Red River. Incorporators are Alexander Richmond, of Muskogee, Ind. T.; D. W. Bolich, N. P. Doak, D. W. Cheatham, J. W. O'Neill, Frank Owen, B. A. Dinwiddie, M. L. Sims, J. B. Donoho, Alfred S. Tubbs, J. B. Lassiter and C. D. Lennox. Alfred S. Tubbs, Secy., at Clarksville, writes us that construction work probably will start within 60 days. This company will incorporate in Oklahoma at once. D. W. Bolich is Gen. Mgr. and Ch. Engr.; N. P. Doak is Pres.

PORTLAND, MONTPELIER & HUNTINGTON.—Ind.—Articles of incorporation have been filed by this company with authorized capital of $1,400,000. The proposed route of the road is not stated, but the headquarters of the company will be at Montpelier, Ind. W. F. Sinclair, D. R. Hardman, D. A. Williamson and others, are reported incorporators.

RED MOUNTAIN RAILROAD, MINING & SMELTING COMPANY.—This company, with headquarters at Phoenix, has been incorporated in Arizona with a capital stock of $5,750,000. The incorporators are chiefly capitalists of Philadelphia, Pa.

ROARING FORKS, VA.—Incorporated to build from Norton, Wise County, to the junction of Pot Camp and Roaring Forks branch of Powell River. It will connect at Blackwood with the Louisville & Nashville. Capital stock, from $10,000 to $100,000. Incorporators: Calvin Pardee, Alfred D. Pardee, J. L. Hetler, L. E. Beisel, H. E. Fox, R. T. Irvine and C. B. Slemp. Calvin Pardee, of Philadelphia, Pa., is Pres. and J. L. Hetler, of Blackwood, Va., is Secy. Offices are at Blackwood and Big Stone Gap. The line will be about 16 miles long. It will go through a narrow valley with steep, high bluffs on either side. Horace E. Fox, of Big Stone Gap, Va., is Ch. Engr. The Blackwood Coal & Coke Co. is reported interested in the project and may construct the road.

WEST FRANKFORT & OHIO RIVER.—Ill.—Company has incorporated to build a railroad from West Frankfort through counties of Franklin, Williamson, Saline and Gallatin to a point on the Ohio River in Gallatin County. Incorporators and first Board of Directors: J. P. Reeves, E. H. Senneff, J. J. Duck, F. W. Krohn, H. F. Jones, Chicago. Capitol stock, $50,000. Principal office, Chicago.

WHITE HALL RY.—Ill.—Incorporated to build from White Hall to Coal City, Green County. Incorporators: Albert P. Grount, Winchester, Ill.; John R. Davis, Edward P. Kirby and Edward S. Greenleaf, of Jacksonville, Ill.; Jett & Kirby, Jerseyville, Ill.; Harry C. Morrow and Harry O. Tunison, White Hall, Ill. Principal office, White Hall.

*Information concerning contracts to be let or supplies to be furnished, and corrections of errors and omissions in published items, are invited. Full details regarding the equipment, tools, etc., required for the proposed improvements are specially desired.*

## STREET AND ELECTRIC RAILWAYS.

ROCKVILLE, CONN.—Preliminary plans for the Rockville, Broad Brook & East Windsor Street Ry. Co. have been nearly completed. The company is capitalized at $100,000. Local franchises and rights of way have been secured and contract for building line will soon be awarded.

SCHENECTADY, N. Y.—The preliminary survey for the extension of the Schenectady Railway to Cohoes has been completed. The line will extend through Crescent and Groom's Corners, and will probably be built next spring. C. C. Lewis is Ch. Engr.

SCRANTON, PA.—The contract for construction of an electric railroad between this city and Tunkhannock, a distance of 30 miles, has been awarded to the American Limestone & Cement Co. Cost of construction, $950,000. Deputy Att'y-Gen. F. W. Fleitz is interested.

PITTSBURG, PA.—Contract for construction of West View Bellevue electric line, four miles, of Pittsburg Railways Co., was awarded to American Construction Co., Willamsport, Pa. The maximum contact system will be used, power being furnished from between the rails by a series of contact blocks placed about eight feet apart.

GREENSBURG, PA.—Contract for building eight miles of street railway between Apollo, Pa., and Leechburg, Pa., for Allegheny Valley Street Ry. Co., was awarded to P. F. McCann, City.

SPRINGFIELD, O.—Frank Patterson, of Brooklyn, O., is at the head of a company just organized and incorporated with a capital stock of $50,000 which will build an electric line from this city to Chillicothe, a distance of 65 miles.

WASHINGTON, IND.—A franchise has been granted by City Council to the Vincennes, Washington & Eastern Traction Co. The line must be completed within 16 months.

INDIANAPOLIS, IND.—The Indianapolis, Hartford City & Celina Traction Co., recently incorporated, which is floating a project to build an electric line from this city to Celina, O., via Alexandria and Hartford City, asserts that construction work will begin Oct. 1. J. P. McGeath, Hartford City, is interested.

ADRIAN, MICH.—A new electric line will be built from Adrian to Jackson, to cost $320,000.

ALTON, ILL.—Work of making the survey for the new electric line which is to run from North Alton to Jerseyville has been started.

KANKAKEE, ILL.—The Northern Traction Co., whose present trolley line runs from Indianapolis to Crawfordsville via Lafayette, will extend its line from Crawfordsville to Attica, thence planning to extend to Milford, Ill., on the C. & E. I. Railroad, with Kankakee as the next objective point. From Kankakee the line, as planned, will go to Chicago between the Illinois Central and Wabash roads, connecting at Blue Island with Chicago trolley lines.

AURORA, ILL.—The Aurora, De Kalb & Rockford Electric Traction Co. is the new electric line that is to run from De Kalb to Aurora. The line is to connect with the Chicago, Elgin & Aurora line. It will be 20 miles long. Work on first division has begun, and as soon as preliminary work is finished the grading will begin. The William C. Ross Construction Co., Chicago, has the contract at $125,000. A large power plant will be erected at De Kalb. The company will lay 70-lb. rails on the entire line.

KEWANEE, ILL.—The petition of the Galesburg & Kewanee Electric Ry. Co. for a new franchise has been granted by City Council. The franchise requires that the railway shall be laid to city limits on or before Jan. 1.

LINCOLN, ILL.—The letting of contract for construction of Springfield-Lincoln-Bloomington-Pekin and Peoria electric road as far as Lincoln was conceded to McArthur Bros., of Chicago. Cost, $57,000. The contract involves all work on roadbed, but the installation of ironwork on bridges will constitute a separate contract. Work will begin at once.

ROCK ISLAND, ILL.—The Tri-City Ry. Co. will rebuild the horse-car line between Sears and Milan for electric traction at once. Materials are said to have been ordered.

ARKANSAS CITY, KAN.—The Kansas-Oklahoma Interurban Ry. Co. has completed the survey for road. It will connect Arkansas City, Chilocco, Geuda Springs and Winfield. W. C. Robinson is Pres.

ST. LOUIS, MO.—A franchise has been granted by the Madison County Board of Supervisors to the Central Traction Co., giving the privilege of constructing and operating an electric line over the State road in Godfrey township. Robt. Curdie, Alton, Ill., is Vice-Pres.

FORT WORTH, TEX.—The Northern Texas Traction Co. obtained a franchise to lay a single or double track on 23d and other streets in North Forth Worth. F. M. Haines is Gen. Mgr.

NEW BRAUNFELS, TEX.—M. M. Brice, of Southern Realty Development Co., with headquarters at Chicago, Ill., and Geo. A. Hill, of Beaumont, have been investigating the situation at New Braunfels with the object of building an electric railway from this place to Seguin.

GUTHRIE, OKLA.—Chas. H. Martindale, City, has made a proposition to the City Council to construct an electric railway system for Guthrie, and the matter is under consideration by city fathers.

LEXINGTON, OKLA.—City Council granted a franchise to Oklahoma City, Lexington & Sulphur Springs Electric Ry. Co. to build its line in the town. The citizens have raised a cash bonus for railway of $6,000, and it is understood that construction will begin some time in October. The enterprise is financed by the Lincoln Trust Co. of St. Louis.

COLFAX, WASH.—J. P. Graves, of Spokane, is considering the construction of an electric railroad from Spokane Palouse, Penewawa and other points in Whitman County. to Colfax, and with branch lines to Moxow, Pullman,

COLFAX, WASH.—A company has been organized for the purpose of constructing an electric railway from Colfax to Palouse. W. W. Tracy, Butte, Mont., is Gen. Mgr. It is proposed to construct a line from Colfax up Spring Flat creek, through Albion to Palouse City, a distance of 24 miles.

EVERETT, WASH.—A franchise was granted by County Commissioners to E. G. Kreuger for an electric railway from Index to Mineral City. Machinery and material for road are to be purchased at once.

BAKERSFIELD, CAL.—The Power, Transit & Light Co. will begin at once the construction of an additional electric line through the city to the substation. The extra line will be connected with the pumping plants.

REDDING, CAL.—The franchise for the electric railway, for which bids were opened Sept. 6, was granted to Harry L. Shannon, of Redding.

SAN DIEGO, CAL.—U. S. Grant, of San Diego, is interested in the construction of an electric railway from San Diego to Point Loma. It is said the road can be built at a cost of about $250,000. H. T. Richards, Ch. Engr. of San Diego Eastern Ry. Co., will submit estimates.

WATSONVILLE, CAL.—The Watsonville Transportation Co. has completed arrangements for the extension of their line to Vega. The company has voted to issue $200,000 in bonds.

EUREKA, UTAH.—A petition has been presented to the Council by Jackson McChrystal and Phillip Clark, City, for a franchise to operate an electric light and railway system.

SALT LAKE CITY, UTAH.—The Utah Traction Co., which proposes to build an electric interurban line from Logan on the north through Brigham, Ogden, Farmington, Salt Lake and Provo to Payson on the south, has secured all franchises and rights of way, and will soon make surveys. B. Mahler, Cleveland, O., is interested.

## LIGHT, HEAT AND POWER PLANTS.

WEST CHESTER, PA.—John R. Wiggins has been awarded contract for a power house, 107 × 58 ft., for the Philadelphia & West Chester Traction Co., at $21,200. It will be located between Newton Square and West Chester.

RICHMOND, VA.—Council Committee on Light has decided to erect the new 2,000,000 cu. ft. gasholder on the block bounded by Oak, Moor, Graham and William Sts. $150,000 has been appropriated for gasholder; $40,000 will be appropriated for the pipe line that will carry the gas from the present plant in Rocketts. Bids are asked until Oct. 4 for construction of the gasholder.

ROSSLYN, VA.—Great Falls & Old Dominion Electric Ry. Co., of Washington, D. C., is reported to be arranging for the erection of power house, car sheds and sidings here.

CAIRO, GA.—Election will be held on Oct. 20 to vote upon question of issuing bonds for water-works and electric light plant.

TUSCAMBIA, ALA.—C. B. Kelsey, Secy. North Alabama Gas Co., writes us that this company will not require any construction work except laying pipe from Florence, Ala., to Tuscambia. The North Alabama Gas Co. was recently granted a franchise for a gas plant in this city. It is incorporated with capital stock of $150,000. Clarence H. Geist, of Chicago, is Pres.

NEW ALBANY, MISS.—Bids are asked until Oct. 21 for the purchase of $20,000 worth of 5% electric light and water-works bonds. W. A. Liddell, Mayor; E. M. Owen, Cy. Clk. (Advertised, Engineering News.)

CHATTANOOGA, TENN.—C. E. James, S. W. Divine and others are said to be interested in project to generate power from waters of the Ocoee and Hiwassee Rivers. The scheme is said to carry with it plans for the consolidation of the properties of two local street railways, and to operate the cars by electrical power generated at the proposed Ocoee-Hiwassee plant.

CINCINNATI (BOND HILL STATION), O.—After Jan. 1, 1905, electric lights will be substituted for present naphtha lamps. W. J. Byrth, of Council, may be addressed.

SIDNEY, O.—Fred. W. C. Bailey, Consult. Engr., informs us that the Citizens' Light, Heat & Power Co. will probably install return tubular boilers, Corliss engines and belted type revolving field polyphase alternators with overhead distributing system. Mr. Bailey may be addressed at 501 Spahr Bldg., Columbus, O.

CINCINNATI, O.—It is reported that additional improvements, to cost $500,000, will be made by the Cincinnati Gas & Electric Co. at the West End gas plant, including new elevators, new retorts, etc. It will require two years to complete the work. This work will be discussed at the October meeting of the Gas Directors.

SPRINGFIELD, O.—At annual meeting of the stockholders of American Railways Co. it was decided to erect a new power house at a cost of $100,000. The officers elected are: Oscar T. Martin, Pres.; H. J. Crawley, Vice-Pres.; C. L. S. Tingley, Secy. and Treas.

BIRMINGHAM, MICH.—Council has granted the Standard Heating & Lighting Co., of Detroit, a 20-year franchise and a 5-year contract for lighting the village with acetylene gas. The company will put in a plant.

MANISTIQUE, MICH.—McArthur Bros. & Co., of Chicago, have the contract for the construction of the new light and power plant of this city, plans for which were prepared by Engineers O'Keefe and Orbinson, of Appleton, Wis. The contract calls for an expenditure of $50,000. About 1,000 HP. will be developed at the beginning, but this may be increased by the addition of new machinery.

Plans for the proposed water-works system include the erection of a stand-pipe. The water-works and sewer survey is still in progress. Estimates on this work will be ready about Oct. 15.

GRAND RAPIDS, MICH.—Bids were received by Board Public Works for direct-connected engine and dynamo for public lighting plant. Arbuckle-Ryan Co., agent for Russel Engine Co., was lowest bidder.

MILWAUKEE, WIS.—Municipal lighting plant project will be taken up by Council. Chairman F. J. Stiglbauer of the Council Committee, appointed to investigate municipal light plants in other cities, and City Engineer Charles Poetsch and Alderman Henry Smith have returned and will present proposition to Council in favor of erecting and maintaining a municipal plant. Bond ordinance is reported signed, providing $150,000 for the plant.

ARKANSAS CITY, KAN.—The $45,000 plant of Arkansas City Gas & Electric Light Co., was recently burned. Insured for $3,300. Plant said to be almost a total loss.

KANSAS CITY, KAN.—Ordinance has been introduced giving the right to the United Gas & Fuel Co. to pipe natural gas into this city for a period of 30 years. The People's Natural Gas & Fuel Co. has a franchise before the Council, as fully noted in issue of Sept. 15, and another company, represented by R. M. Snyder and M. M. Sweetman, is said to be preparing to introduce an ordinance for a franchise. Frank Rockefeller, of Cleveland, O.; Frederick W. Freeman, Topeka; John S. Parks, Topeka; Charles J. Lantry, Strong City, Kan.; Willard N. Hall, Topeka; Fred. E. Wear, Kansas City, Mo.; Samuel E. Sexton, of Hucke & Sexton, Kansas City, Mo., and others are interested in the United Gas & Fuel Co. The ordinance stipulates that the laying of pipes shall begin in three months after the acceptance of the franchise and in two years the company must lay 25 miles of mains.

LINCOLN, NEB.—Bids are asked until Oct. 18 for construction of a power house and chimney for water plant at the Mockett well. Thomas H. Pratt, Cy. Clk. G. L. Campen, Cy. Engr. C. R. Richards and G. H. Morse, Consult. Engrs.

LANDER, WYO.—R. A. Morse, of this place, is reported to have succeeded in promoting a plan for the construction of a 1,000-HP. electric plant at the falls of Big Propogie, about 10 miles away. A power line will be run to the old South Pass and Atlantic City mining districts, and the plant will furnish lights and ample power to run all machinery now in use at those places. A line also will be run to the city to furnish lights and power for residents who have been unable to secure them from the company operating in Lander at present. Company has also secured the rights to the north fork of the river and will also install machinery at that point, should the power obtained at the Big Propoagie fails prove insufficient. It will be incorporated under the name of the Wyoming Light & Power Co.

SEARCY, ARK.—Owen Ford, Consult. Engr., 710 Security Bldg., St. Louis, Mo., writes us that no action has been taken nor date set for receiving bids for construction of a complete electric light plant to cost about $21,000. The plant will be installed by the Electric Light Improvement Board, of which Emmet Snipes is Secy.

OZARK, ARK.—It is said that F. F. Stevens will be associated with O. M. Campbell in construction of waterworks and electric-light plant, for which franchise has been granted to Mr. Campbell. Campbell & Stevens can be addressed, care of Southern Hotel, Fort Smith, Ark.

CHICKASHA, IND. T.—A franchise for a gas plant was granted by City Council to H. I. Martin, of Wabuon, Mass., and A. A. Humphrey, of Guthrie. It extends over a period of 50 years. City has the option of purchasing the plant at an appraised valuation after five years. Work is to begin within 60 days after the acceptance of the franchise. Four miles of mains are to be laid within ten months and eight miles within 20 months.

LA GRANDE, ORE.—The La Grande Water Storage Co. is about to begin the construction of a water power electrical plant, of about 1,000-HP. capacity, to operate under 1,200 ft. head. E. W. Cummings, 20 Dexter Horton Building, Seattle, Washington, is the Designing and Constructing Engr., and may be addressed.

EUGENE, ORE.—W. J. Wilsey, of the Willametto Valley Electric Ry. Co., is reported to have stated that the company will put a corps of surveyors out to survey three different power plant sites for the big system. It is expected to get the power plant completed by spring. It is planned to begin grading at Corvallis, Junction and Eugene and Coos Bay at the same time, with the expectation of completing 100 miles of the line this fall.

HANFORD, CAL.—The H. G. Lacey Co. is preparing to invest about $10,000 in the improvement and extension of the electric light and power service in this city during the next three months, it is reported.

OROVILLE, CAL.—Supervisors have granted to the Butte County Power, Light & Water Co. a franchise to conduct electricity through the streets of Stirling City and to lay pipes for the purpose of furnishing water to that town.

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COVINA, CAL.—J. D. Reed has organized [illegible] corporation to be known as the Covina Valley Gas Co., [illegible] capitalized at $50,000. Mr. Reed has been granted a gas franchise. A suitable site for the plant, comprising an a[illegible] ground, has been purchased. Bids are being secured [illegible] pipe and the erection of the plant. It is said to be [illegible] purpose of the company to supply gas to the entire v[illegible]

PIOCHE, NEV.—The Comstock Pumping [illegible]iation, composed of 31 mining companies, has ag[illegible] to contract with the Truckee River Electric Co. [illegible] the erection of a new power plant on the Truckee [illegible] to furnish power for the Comstock mines. Plant [illegible] cost $200,000.

TROY, IDAHO.—Troy Mfg. Co. has been [illegible]ted a franchise for a 20-year lighting system.

## BRIDGES.

WALTHAM, MASS.—The Board of Aldermen [illegible] the order for $3,700 to construct a new bridge on [illegible] Ave.

BOSTON, MASS.—The contract for construct[illegible] bridge over Ipswich River in Reading and North R[illegible] has been awarded by Massachusetts Highway Com[illegible]on to Aberthaw Construction Co., 8 Beacon St., B[illegible], for $4,244. W. E. McClintock, Chn. Comr.

SALEM, MASS.—Essex County Commissioners awarded to the Cambria Steel Co., of Boston, the contract for steel construction material for Water St. bridge. The contract called for 49,140 lbs. material in the shape of girders and ties.

BOSTON, MASS.—The New York Central Railroad will rebuild the Grand Junction branch bridge across [illegible] River, near Cottage Farm. The bridge is to be [illegible] ft. long, built on piles. W. G. S. Chamberlain, [illegible], is Bridge Engr.

LYME, CONN.—A steel bridge will soon be erected over Lieutenant River. To provide for this the town has appropriated $3,800; the remainder, $2,825, will be paid by private subscriptions.

SAUGERTIES, N. Y.—The New Jersey Bridge Co. is stated to have received the contract for repairing the bridge crossing the upper creek for $5,900.

NEW YORK, N. Y.—T. V. Smith Contracting Co., 147 E. 125th St., was low bidder Sept. 26, at $154,741, for constructing bridges and approaches over Port Morris Branch of N. Y. & H. R. R., in Bronx Borough. Itemized bids for above work are given under Contract Prices.

HARRISBURG, PA.—The Board Public Grounds and Buildings opened bids Sept. 22 for three new bridges. The following were the lowest bidder for each bridge: Nelson & Buchanan, for a bridge over Mahoning creek, $17,945; York Bridge Co., bridge over Conewago creek, $23,750; National Bridge Co., 1123 Broadway, New York, bridge over Penn's creek, $43,500.

MORRISTOWN, PA.—Contract for steel superstructure for a bridge over Perkiomen Creek at East Greenville was awarded to the Eyre Construction Co., at $2,914.

PETERSBURG, VA.—Several bridges across the streams in Dinwiddie County were destroyed by the recent washout. It will cost the county several thousand dollars to replace them.

WASHINGTON, D. C.—The Engineering Department of the District has decided to approve the suggestion for the erection of T St. bridge over railroad tracks in Eckington. The bridge is to be constructed by the Baltimore & Ohio Railroad. D. D. Carothers, Baltimore, Md., is Ch. Engr.

ARNAUDVILLE, LA.—Preparations are now being made for construction of a new bridge across Bayou Teche at this place. P. Zernott, of Washington, La., will build the bridge.

CLEVELAND, O.—The County Commissioners have perfected plans to borrow $48,000 for the bridge improvement fund. The additional money will be obtained to take care of bridges that have been condemned.

MANSFIELD, O.—Separate bids are asked until Oct. 15 by County Commissioners for constructing either concrete complete or steel superstructure, and stone or concrete substructure of Butler bridge, in Worthington Township; Sturtz bridge, in Butler Township; Crummy and Bell bridges, in Madison Township; Umbarber bridge, in Springfield Township; Rose bridge, in Monroe Township, and a steel superstructure for Slaughter House bridge, in Sharon Township. Geo. H. Weidner, County Audr.

CLEVELAND, O.—Bids are asked until Oct. 12 by Board of Commissioners of Cuyahoga County for building a concrete arch in Bedford township; also a concrete steel bridge in Euclid township. Julius C. Dorn, County Clk.

TOLEDO, O.—The Lake Shore Railway has notified the Board Public Service that it would build a new bridge over Fassett St. crossing at once. F. W. Coen, Cleveland, is Secy.

BROWNSTOWN, IND.—Bids are asked by Jackson County Commissioners until Oct. 4 for construction of five steel bridges. A. H. Manuel, County Audr.

VEVAY, IND.—Bids are asked until Oct. 14 by County Commissioners for building an iron or concrete bridge over east fork of Indian creek in Switzerland County. L. D. Woollen, County Audr.

PORTLAND, IND.—Bids are asked by Jay County Commissioners until Oct. 3 for construction of a stone abutment and wood top bridge in Knox Township. Plans and specifications on file in office of County Audr.

MOUNT VERNON, IND.—The County Council allowed $13,000 for new bridges for 1905.

MOUNT VERNON, IND.—Bids are asked by Posey County Commissioners until Oct. 4 for construction of three steel bridges. Silas G. Howard, County Audr.

SHOALS, IND.—Bids are asked by Martin County Commissioners until Oct. 4 for construction of several new steel bridges and abutments. Plans and specifications on file in office of John C. Carothers, County Audr.

MONTICELLO, IND.—Bids are asked by White County Commissioners until Oct. 4 for the repairing of superstructure of four bridges in Prairie Township and one in Monon Township. Plans and specifications on file in office of J. L. Ackerman, County Audr.

LAFAYETTE, IND.—Bids are asked by Tippecanoe County Commissioners until Oct. 4 for construction of three bridges. Plans and specifications on file in office of H. H. Cheney, County Audr.

LEBANON, IND.—Bids are asked by Boone County Commissioners until Oct. 3 for the repair of six steel bridges. Appropriation, $5,525. Plans and specifications on file in office of B. F. Simmons, County Audr.

DELPHI, IND.—Bids are asked until Oct. 3 by F. H. Engel, County Audr., for constructing a bridge in Washington Township.

PONTIAC, MICH.—The Common Council has voted to spend $78,000 the coming year to replace wooden bridges with steel ones, and to build sewers.

RACINE, WIS.—Four bids for repairing and raising Sixth St. bridge were received by Board Public Works. All bids were rejected on account of being too high. Gillen & Gillen were the lowest bidders, at $16,258. New bids have been advertised for.

DES MOINES, IA.—Board of Supervisors is considering the erection of a new bridge to cost $14,000.

WICHITA, KAN.—Bids are asked by County Commissioners until Oct. 15 for constructing a 40-ft. steel bridge in Kechi Township and a 72-ft. steel bridge in Grant Township.

HOUSTON, TEX.—Bids have been ordered advertised for the construction of Laura St. bridge across the bayou.

OLYMPIA, WASH.—Bids are asked until Oct. 10 by County Commissioners for construction of bridge over Skookumchuck River. Plans and specifications on file at office of Geo. E. McKenzie, County Audr.

RIVERSIDE, WASH.—Bids asked by County Commissioners until Oct. 4 for constructing a bridge across Okanogan River at Riverside.

PRINEVILLE, ORE.—Bids are asked by Crook County Commissioners until Oct. 15 for a bridge and abutments across Willow Creek, at Madras. J. J. Smith, County Clk.

SAN BERNARDINO, CAL.—The Board of Supervisors has called for bids for construction of two steel bridges. Bids are asked by Supervisors until Oct. 10 for construction of a bridge over San Timoteo Creek. L. A. Flemer, Clk.

SANTA CRUZ, CAL.—Supervisors reject all bids for steel bridge over Boulder Creek, on the proposed new State Park road. Stone and cement will probably be used for stream crossings.

SANTA CRUZ, CAL.—Bids are asked by H. H. Miller, County Clk., until Oct. 3 for construction of a steel and concrete bridge over Pajaro River.

SAN LUIS OBISPO, CAL.—Bids are asked by Board of Trustees until 5 p. m., Oct. 10, for construction of center span of French St. bridge.

SAN RAFAEL, CAL.—The Supt. of Streets was authorized to advertise for bids for construction of a concrete bridge on Culloden Ave.

STOCKTON, CAL.—The County Engineer was ordered by Board of Trustees to prepare plans and specifications for steel bridge over Rock Creek and on the grant line road.

LOS ANGELES, CAL.—Bids are asked by H. J. Lelande, Cy. Clk., until Oct. 3 for construction of a foot bridge across Los Angeles River at Alhambra Ave.

FINCH, ONT.—A by-law to raise $20,000 to build two steel bridges was carried.

INGERSOLL, ONT.—A new steel bridge wil be built at Alma st.

LONDON, ONT.—A new steel bridge will be built between Westminster and Yarmouth townships.

AMHERSTBURG, ONT.—The Town Council has decided to build three steel bridges over Belle River.

## BUILDINGS.

BOSTON, MASS.—Wm. G. Prentiss, Arch., is reported to have prepared plans for remodeling warehouse for New England Storage Warehouse Co. Cost, about $130,000.

LEOMINSTER, MASS.—Bids are reported to have been received as follows for erecting a high school: E. J. Cross, of Worcester, $98,894; J. W. Bishop & Co., of Worcester, $99,946; Albert E. Lyon, of Leominster, $100,500; G. A. Fuller & Co., of Boston, $101,980; George H. Cutting & Co., of Worcester, $111,196; Schoville & Wheeler, of Worcester, $111,881; M. P. Moree & Co., of Leominster, $114,000. This contract does not include heating plant. William F. Dunn, of Leominster, was awarded contract, at $99,991.

MARBLEHEAD, MASS.—Lowest bid for construction of post office at Marblehead was submitted by the Wheaton Building and Lumber Co., Putnam, Conn., at $74,000.

WORCESTER, MASS.—Maguire & Penniman, Providence, R. I., have contract to build the alumni building at Holy Cross College, Worcester. Maginnis, Walsh & Sullivan, Boston, are the Archs. Three-story fireproof building, of brick, with terra cotta trimmings. Cost, $100,000. Mentioned previously.

BROOKLYN, N. Y.—Bids are asked until Oct. 5 for furnishing labor and materials necessary to repair the roof on the dome of the Kings County court house. Martin W. Littleton, Pres. Boro.

BUFFALO, N. Y.—Aldermanic Finance Committee has authorized the Comptroller to issue $150,000 of bond for new schools.

FORT SLOCUM, N. Y.—Bids are asked until Oct. 15 for constructing a brick double barrack. W. C. Russell, Q. M. (Advertised, Engineering News.)

LONG ISLAND CITY, N. Y.—Bids are asked until Oct 3 for renovating and repairing the Queens county court house, administration and jail buildings, located at Court House Sq., Long Island City, Boro. Queens. Joseph Cassidy, Pres. Boro. Queens.

NEW YORK, N. Y.—Bids are asked until Oct. 5: (1) For furnishing necessary labor and material for mason, iron, marble, slate, tinning and plastering work, and renovating and tiling. (2) For plumbing work and to complete the alterations to the steam heating apparatus. (3) For painting, cabinet and carpenter work, ornamental plaster work, parquet flooring and rugs. (4) For the installation of electric lighting and ventilating systems in the City Hall, Boro. Manhattan. John F. Ahearn, Boro. Pres.

Bids are asked until Oct. 3 for installing heating and ventilating apparatus in temporary school buildings on the southerly side of Manhattan approach to the Williamsburg Bridge. Also for installing heating and ventilating apparatus for addition to and alterations in public school 6, Long Island City, Boro. Queen. C. B. J. Snyder, Supt. School Bldgs.

NEW YORK, N. Y.—Bids were received on Sept. 22 by John J. Pallas, Pres. Dept. Parks, for work and materials for erection and completion of the library stack work in the New York Public Library, Astor, Lenox and Tilden Foundations, at Fifth Ave., 40th to 42d St., as follows: Snead Iron Works, Jersey City, N. J., $889,753; Library Bureau, 316 Broadway, $952,000; Van Dorn Iron Works, Cleveland, O., $797,000; J. B. & J. M. Cornell, 26th St. and 11th Ave., $870,000; P. J. Carlin, 26 Court St., Brooklyn, $712,000; Hecla Iron Works, 118 North 11th St. Brooklyn, $737,200.

Bids were received on Sept. 19 by Department of Education for general construction, also plumbing and drainage of School 85, at 117th St. and First Ave., Manhattan. C. H. Peckworth, 415 Hudson St., at $152,961; Waters & O'Connell, 5 East 42d St., at $152,995, and P. Sullivan, 230 Grand St., at $152,600, were three lowest bidders. Fifteen bids were received.

**SYRACUSE, N. Y.—Chancellor J. R. Day of Syracuse University has announced the gift from Lyman C. Smith of an additional $100,000 building for the Lyman Cor**nelius Smith College of Applied Science. The new structure will be used as a mining, engineering and mechanical laboratory.

TROY, N. Y.—Board of Trustees, Rensselaer Polytechnic Institute, has decided to rebuild the main building, that was destroyed in June, upon same site at Eighth St. and Broadway.

PATERSON, N. J.—Welch, Smith & Provot, 11 East 42d St., New York, are reported to be preparing final plans for a three-story semi-fireproof brick and stone building, 125 × 50 ft. for the Y. W. C. A. of Paterson. It will be built at Ellison and Church Sts. Estimated cost, $75,000. The architects will let all contracts. Wm. Barbour, of Paterson, is Chn. of Bldg. Com.

McKEESPORT, PA.—James Brown, Jr., Cy. Clk., writes us that following bond ordinances, mentioned as being before council, were defeated in Select Council: $1,000,000 for a city hall; $30,000 for a poor farm; $70,000 for a main sewer; $50,000 for a filtration plant and $125,000 for a municipal light plant; $50,000 for a new garbage furnace.

PHILADELPHIA, PA.—It is reported that Charles B. Prettyman will erect 58 2-story dwellings, each 15 × 33 ft., on the north and south sides of Addison St., between 53d and 54th Sts. Total cost, $116,000.

LIMA, PA.—Plans for the group of buildings to comprise the County Hospital for the Insane of Delaware County, will be drawn by Henry L. Reinhold, Jr., 430 Walnut St., Philadelphia. Administration building will be three stories high, 65 × 40 ft.; two ward buildings will be 2½ stories high, 50 × 165 ft.; dining hall and kitchen and chapel will be 46 × 96 ft.; the power house for steam heating and electric lighting will be detached; all of stone. Cost, about $150,000. As soon as plans are completed estimates for construction will be asked by the Directors of the Poor of Delaware County.

CONNELLSVILLE, PA.—Rockwell Marietta, of Connellsville, is at head of company organizing a new national bank here. Plans have been prepared for new bank building to cost $150,000.

ALLEGHENY, PA.—It is reported that civic authorities of Allegheny City will request donation of $150,000 from Andrew Carnegie for purpose of building addition to the city's present Carnegie Library.

PHILADELPHIA, PA.—Caldwell & Simon, Archs., 1229 Walnut St., have invited bids until Oct. 12 for a lodge building for P. B. O. Elks, to be built at Juniper and Arch Sts.

HARRISBURG, PA.—C. Howard Lloyd, Arch., is preparing plans for a manual training school for this city. Brick and stone, three stories.

WILMINGTON, DEL.—Pennsylvania Ry. Co. has invited bids until Oct. 3 for erection of an office building. Brick, stone and steel; fireproof, four stories, about 50 × 180 ft.

BALTIMORE, MD.—Thos. L. Jones & Son, 410 West Saratoga St., have been awarded contract for a bank and office building for Maryland Savings Bank, to be built at Baltimore and Holliday Sts.

James Stewart & Co., 319 North Charles St., have been awarded contract for a bank at Liberty St. and Hopkins Pl., for National Exchange Bank.

Ellicott & Emmart, Archs., 323 North Charles St., have drawn preliminary sketches for 8-story hotel, 65 × 153 ft., to be located at Baltimore and Hanover Sts., for Sylvanus Stokes, manager of Hotel York, New York, and Hotel Monticello, Norfolk, Va. Cost, about $200,000.

Henderson & Co., Ltd., builders, 218 West Fayette St., want sub-bids, it is reported, on the following building materials for buildings at 22, 24 and 26 South Charles St. Brick, limestone, steel and iron work, sheet-metal work, metal frames and sashes, vault lights, metal ceilings, electrical work, plumbing, heating system, hand elevators, dumbwaiter, mill work, painting and glazing, plastering.

Architects who were invited in competition to prepare plans for the laying out of the grounds and general development of Homewood, the new site of the Johns Hopkins University, near Baltimore, and for the construction of its group of buildings, will submit plans by Oct. 1. The improvements will exceed $1,000,000 when fully carried out. Dr. Ira Remsen, Pres. Johns Hopkins University, and R. Brent Keyser are the judges.

ANNAPOLIS, MD.—Bids were received, as follows for constructing naval hospital building at the Naval Academy: John Peirce, 277 Broadway, New York, (1) for the entire work, granite as specified, $288,186; limestone instead of granite, $279,411; (2) administration building, laundry and power house, granite, $116,193; limestone, $113,744; (3) for one solarium, granite, $5,603; limestone, $5,445; (4) for one ward and corridor to solarium, granite, $24,344; limestone, $23,331; (5) for one isolation pavilion, comprising two wards and not [illegible] corridor, granite, $15,142; limestone, $14,521; (a) light fixtures, $1,928.30; (e) elevator work, $3,600; (f) plumbing fixtures, $13,679. John Gill & Sons, 1405-7 Williamson Building, Cleveland, O., (1) for the entire work, granite, $282,750; limestone, $274,750; (2) administration building, laundry and power house, granite, $133,750; limestone, $131,950; (3) for one solarium, granite, $8,000; limestone, $7,625; (4) for one ward and corridor to solarium, granite, $20,000; limestone, $19,200; (5) for one isolation pavilion, comprising two wards and not including open corridor, granite, $25,000; limestone, $24,050; (a) [illegible] fixtures, $1,500; (e) elevator work, $3,630; (f) plumbing work, $9,460. J. W. Cooney, 746 West Saratoga St., Baltimore, Md., (f) plumbing work, $8,650. Dunigan Plumbing Co., 717 12th St., N. W., Washington, D. C., (f) plumbing work, $6,950.

WASHINGTON, D. C.—Bids are asked by the Supervisor of Construction, 14th and E. Sts., N. W., until Oct. 27 for furnishing cut stone for the Municipal Building Capt. Chester Harding, Corps of Engrs., Supervisor of Construction; H. B. F. Macfarland, Comr. (Advertised, Engineering News.)

Richardson & Burgess, Colorado Bldg., have been awarded contract for superstructure of new memorial office building for Daughters of American Revolution. Cost, when completed, $300,000. Previously mentioned.

Bids were received on Sept. 20 at the office of Supervising Architect for construction of the west outbuilding, Bureau of Engraving and Printing, as follows: Gleeson & Humphrey, Washington, D. C., $119,900; J. E. & A. L. Pennock, Philadelphia, Pa., $109,700; W. P. Lipscomb & Co., Washington, D. C., $111,200; Penn Bridge Co., Beaver Falls, Pa., $101,400; Kendrick & Roberts, Inc., Philadelphia, Pa., $101,377; J. T. Wilson, Richmond, Va., $128,500; Cramp & Co., Philadelphia, Pa., $113,850; James L. Marshall, Washington, D. C., $108,000; Burgess & Parsons, Washington, D. C., $136,900; Isadore Pavarial, Washington, D. C., $119,900; Fissel & Wagner, New York city, $104,000; James L. Parsons, Washington, D. C., $109,661; Horten & Hemingway, Boston, Mass., $107,900; The Charles McCall Co., Philadelphia, Pa., $103,451; W. E. Speir, Washington, D. C., $106,000; Richardson & Burgess, Inc., Washington, D. C., $103,913; Ambrose B. Stannard, St. James Bldg., New York City, $99,800.

***Information concerning contracts to be let or supplies to be furnished, and corrections of errors and omissions in published items, are invited. Full details regarding the equipment, tools, etc., required for the proposed improvements are specially desired.***

JONESVILLE, VA.—Plans, specifications and bids will be received by the Board of Supervisors of Lee County until Oct. 1 for a jail, with modern improvements. A. M. Goins, Secy. Com.

FORT MONROE, VA.—Bids are asked until Oct 3 by Capt. C. P. Townley, U. S. A., for gymnasium and post-exchange building; structure to be two stories high with basement, 82 × 90 ft.; brick with stone exterior, concrete foundation, steel beams, steel ceilings, slate roofing, electric wiring and fixtures, sanitary plumbing, hot water heating system. Probably private bidding.

FORT MYER, VA.—Bids are asked until Oct. 17 by Capt. G. C. Barnhardt, Q. M., Fort Myer, Va., for brick building for coal-testing plant.

MORGANTOWN, W. VA.—The Main St. Building Co. has been incorporated to erect a 6-story, 60 × 90-ft. business block, to include a theater, on Main St. Probable cost, $125,000.

COLUMBUS, GA.—Bids are asked by Lockwood Bros. until Oct. 3 for erecting a 3-story municipal building, 78 × 100 ft., to contain quarters for the police and fire departments and armory. Press brick, granite, concrete and terra cotta, iron and steel work, wire guards, concrete flooring, tin roof, electric light, bath tubs, water closet fixtures and steam heat. T. E. Mitchell, Chn. Com.

DUBLIN, GA.—Bids are asked until Oct. 15 for remodeling jail. Albert R. Arnan, Chn.; Wm. C. Solomon, Secy. Bd. Comrs.

PALATKA, FLA.—Bids are asked until Oct. 4 for the erection of a city building. H. J. Klutho, Arch., Jacksonville, Fla. J. N. Blackwell, Cy. Clk.

BIRMINGHAM, ALA.—Reports state that a building is soon to be erected in Walker City, near Birmingham, by the Southern Educational Conference College for colored students. Probable cost, $150,000. Dr. M. C. B. Mason, Secy. Freedmen's Aid and Southern Educational Society, of Cincinnati, O., may be able to give information.

NEW ORLEANS, LA.—Local press report quotes Hunter C. Leake, Gen. Agent of the Illinois Central Railroad in stating that the railroad company would build a warehouse as long as three city squares, if permission were granted company to close Delachaise, Foucher, Aline and Antonine Sts. The municipal affairs committee of the New Orleans Board of Trade is said to favor scheme.

COLUMBIA, MISS.—Board of Supervisors has given notice that it intends issuing bonds to the amount of $50,000 for construction of court house in Columbia. L. C. Wellborn is Chancery Clk.

NASHVILLE, TENN.—Barnett, Hayes & Barnett, St. Louis, Mo., the Archs., write us that plans are now in preparation for the equipment for the Corner Realty Co. building. Contract was let to Westlake Construction Co., of St. Louis, for erecting 12-story office building. It will be 60 × 105 ft., brick, tile and concrete, of fireproof construction, electric elevators, heating and lighting plants. Cost of building, $325,000; cost of equipment, $75,000.

YOUNGSTOWN, O.—New Masonic Temple, 10 stories in height, to cost $300,000, will be erected here in 1905, it is reported.

New city hall, costing $100,000, also will be erected.

CINCINNATI, O.—Commission on Funds and Claims recommends to Board of Education that the proceeds of the bond sale, authorized at the last meeting of the Board, be distributed as follows for the erection of new school buildings: For Clifton, $35,000; Evanston, $60,000; Lickrun, $60,000. In addition to the proposed manual training and commercial high school, the committee is said to recommend that new buildings be erected in place of the present First Intermediate and Avondale schools in the near future; also that the roof of the 10th Dist. School be raised, and an auditorium constructed at a cost of about $40,000.

COLUMBUS, O.—Bids are asked by Board of Trustees, Ohio State University, until Oct. 19 for the erection of a building for the department of chemistry. Plans, etc., at office of Carl E. Steeb, Secy. Peters, Burns & Pretzinger, Archs., Dayton, O. Cost, about $100,000.

Bids will be received Oct. 1 by Ohio State Board of Agriculture for the erection of exhibition buildings on the State Fair grounds, Columbus, as follows: (1) Erection of a poultry building, (2) machinery building, (3) one poultry and one machinery building, (4) two machinery buildings, (5) one poultry and two machinery buildings. H. A. Linthwaite, Arch., State and High Sts. W. W. Miller, Secy.

DELAWARE, O.—John M. Marnott and E. W. Hart & Co., Archs., Columbia Bldg., Columbus, O., will receive bids until Oct. 8 for the Carnegie library building. Two stories, 84 × 84 ft., buff sandstone, press brick, hollow brick, skylights, iron and steel work. Cost $40,000.

PORTSMOUTH, O.—Richards, McCarty & Bulford, Archs., Ruggery Bldg., Columbus, O., are preparing plans for a 6-story Masonic temple, 80 × 120 ft., to be erected in Portsmouth. Press brick and terra cotta, composition roof, fireproofing. Cost, $100,000.

CLEVELAND, O.—John D. Rockefeller has made an additional gift of $50,000 toward the new Young Women's Christian Association building to be erected in this city. Reports state that the doubling of Mr. Rockefeller's subscription is contingent upon the raising of the $150,000 required, in addition to the $100,000 he offers, by November 1. Only $9,230 is still needed.

TOLEDO, O.—Willard F. Robison has purchased site at Madison Ave. and Superior St., 120 × 120 ft., for Ohio Savings Bank & Trust Co., it is reported, upon which will be erected a building to replace present Law Building.

PEORIA, ILL.—Reeves & Baillie, Y. M. C. A. Bldg., are preparing plans for an 8-story office building, to cost $200,000, and two mercantile buildings, one to cost $175,000, and the other $150,000, it is said.

EAST ST. LOUIS, ILL.—R. E. Remich, 142 Collinsville Ave., it is reported, is interested in the organization of a company to erect a $100,000 sanitarium.

CHICAGO, ILL.—Bids are asked by Board of Education, 730 Tribune Bldg., until 3 p. m., Sept. 30, for erecting James Monroe School, Schubert, Monticello and Lawndale Aves. To be three stories and basement, 120 × 204 ft., built of brick, stone, iron, fireproofing. Separate bids will be taken on the following work: Masonry, cut stone, sheet metal and tile roofing, composition roofing, structural iron, iron stairs, wire guards, carpentry, hardware, painting and finishing, glass and glazing, fireproofing, lathing and plastering, concrete floors, asphalt floors, tile floor, telephone and bells, window shades, steam heating, heat regulation, ventilating, plumbing and gas fitting, electric wiring. R. B. Williamson, acting-Arch. T. J. Waters, Ch. Engr.

D. Robertson, Arch., has prepared plans for an apartment building to be built on Sheridan road, near Graceland Ave., for Collins & Morris, Chamber of Commerce Bldg. It will be three stories, 165 × 195 ft., have pressed brick and stone front, with colonial porches at each floor; entrances and bathrooms in marble and mosaic work. It will contain 18 apartments. Cost, $80,000.

Maurice L. Rothschild will erect a 12-story fireproof building at State St. and Jackson Boulevard. The building now on the site will be demolished about April 1, 1905.

A. R. Clark & Co., builders, will let contracts for the second section of a large apartment building at Ellis and Bowen Aves. for themselves. It will be three stories high, of stone up to the second-story window sill, pressed brick above, composition roof, steam heat, combination light fixtures. Cost, probably $150,000. Bishop & Co., Archs., 113 Adams St., made the plans.

Sherman T. Cooper is taking bids on an apartment building to be erected at Evanston Ave. and Edgecomb Pl. It will be three stories high, 125 × 164 ft., pressed brick and stone front, composition roof, combination light fixtures. Cost, $80,000. A. Sandegren is Arch.

SOUTH BEND, IND.—S. S. Beman, 135 Adams St., Chicago, has completed plans and bids will be taken for a Y. M. C. A. building, to be erected with funds furnished by Studebaker Bros. It will be of brick and stone, four stories, 66 × 165 ft. Cost, $150,000.

MILWAUKEE, WIS.—Buemming & Dick, Archs. Pabst Bldg., write that bids will be received in about six weeks for new $130,000 North Side High School, to be erected at Twelfth and Center Sts. Previously mentioned.

SIOUX FALLS, S. DAK.—Bids are asked by C. C. Bratrud, Comr., until Oct. 6 for the erection of a girls' dormitory for the Lutheran Normal School. Bids will be received for either a stone or brick building. Separate bids are requested on the basement and the superstructure, likewise bids on the building complete. Joseph Schwartz, Arch., Sioux Falls.

CHEYENNE, WYO.—Capt. W. S. Scott, Q. M. Construction at Fort D. A. Russell, has received orders to advertise for bids for the erection of 13 new buildings at the post, to be built at a cost of $300,000. The new buildings will be cavalry barracks and quarters. Work is to commence Dec. 1.

LITTLE ROCK, ARK.—F. M. Welch, of Alexandria, La., will organize a $100,000 company to erect a 10-story office building here. George R. Mann is Arch.

COLUMBIA, MO.—The Missouri conference of the M. E. Church (South) has plan under consideration, it is stated, to raise $500,000 endowment for Central College at Fayette, between now and the 50th anniversary of the college in 1907. The 100,000 Southern Methodists in Missouri will be asked to give $5 each.

WARRENSBURG, MO.—Bids are asked by Dr. J. I. Anderson, Pres. Bd. Regents, of Normal Dist. No. 2, until 9 a. m., Oct. 1, for the completion and entire finishing of the new gymnasium. Geo. E. McDonald, Arch.

EL PASO, TEX.—The Sisters of Loretto, of the Catholic church, will erect an academy at a cost of $100,000. Address the Mother Superior for information.

OKLAHOMA CITY, OKLA.—Local lodge of Eagles has had plans drawn for a national home, to be erected at a cost of $50,000.

LAS VEGAS, N. MEX.—Local capitalists, among whom are F. H. Pearce, Dr. J M. Cunningham, H. W. Kelly and others, are planning the erection of a $100,000 hotel.

SEATTLE, WASH.—Plans have been filed by Bebb & Mendell, Archs. for the Illinois Investment Co., for the construction of a 3-story brick, 60 × 120 ft. Estimated cost, $44,000.

Plans have been filed for the Northern Pacific Building to be erected at Spring St. and Western Ave. Cost, $200,000. Kingsley & Anderson are the Archs. Contract has been awarded to McLellan & Co. for the superstructure, at $130,000.

The H. Ryan Co., Globe Blk., it is stated, has prepared plans for a 10-story brick, stone and steel hotel, 100 × 100 ft., to be erected at Third Ave. and Marion St., at a cost of $200,000.

A. Walter Spalding, Arch., has prepared plans for a store and office building to be erected in the near future. It will be 240 × 108 ft., eleven stories high, built of granite, steel and brick. Cost, $1,000,000. Electric elevators will be installed and offices heated by steam

T. Buchinger, Arch., has plans for a 5-story building to be erected on First Ave., south, near Jackson Ave. Cost, $75,000.

FORT TOWNSEND, WASH.—Bids are asked until Oct. 10 for the construction of an addition to the quartermaster and subsistence storehouse at Fort Worden, Wash. Geo. H. Penrose, Q. M.

SPOKANE, WASH.—D. C. Corbin is having plans drawn for a 6-story office building to cost about $300,000. He also is considering the erection of a large store building, 120 × 142 ft. Albert Held is drawing plans for office building.

PORTLAND, ORE.—A new high school building may be erected on the East Side. Project is being discussed by the school directors. Building may cost about $100,000.

SONOMA, CAL.—At recent meeting of Sonoma City Trustees plans and specifications of A. C. Lutgens, of San Francisco, were accepted for municipal building. It will be two stories, of stone. It will be commenced this year.

BERKELEY, CAL.—A $100,000 hall may be erected on State University campus by the Alumni Association. Plans have been prepared.

TUCSON, ARIZ.—The Miners' Home has been incorporated by A. J. Allen, A. B. Allen and others, to purchase real estate in state of California to erect buildings, hotels, sanitariums, etc. Capital, $500,000. Principal place of business Tucson and a branch office at Los Angeles, Cal.

LOS ANGELES, CAL.—Rialto Building & Realty Co. will erect an apartment house at Sixth and Hill Sts., to be known as the Brexel apartments. Cost, estimated at $200,000. J. Cather Newsome is Arch.

Plans have been prepared for an 8-story bachelor apartment house to be erected at Fourth and Main Sts. Cost, $600,000. J. B. Lankershim, owner; A. F. Roenheim is Arch.

Mrs. Elizabeth Hollenbeck will erect a 9-story building, 70 × 150 ft., on Broadway, north of Seventh St.

SAN FRANCISCO, CAL.—Maj. General Arthur MacArthur, commanding the Department of California, in his annual report to the War Department, recommends the expenditure of $2,000,000 for improving the Presidio reservation, the erection of new buildings, the acquisition of an independent water supply and other changes.

A 7-story apartment house of semi-fireproof construction is to be erected by the Starr Estate Co., at Taylor St. and Hobart Pl. Wm. Mooser and E. G. Bolles have drawn plans. Cost, $150,000.

St. Vincent Hospital and Medical Association has been incorporated by J. P. Le Fevre, J. C. Newton and others; capital, $75,000. Place of business, San Francisco.

Bids are asked until Oct. 19 for repairing and remodeling wiring for electric lighting, etc., of general hospital, Presidio of San Francisco. Wm. S. Patten, Asst. Q. M. G.

SANTA CLARA, CAL.—$50,000 bonds will be issued for a new high school building.

SAN FRANCISCO, CAL.—Bids are asked until Oct. 17 for construction of a brick hospital steward's quarters, at Fort Mason, Cal., including plumbing and wiring. Wm. S. Patten, Asst. Q. M.

SYDNEY, N. S.—Contract for building Intercolonial Ry. at Sydney has been awarded to Chappel Bros. & Co., at $56,923.

HALIFAX, N. S.—Plant Steamship Co. has made arrangements to rebuild the warehouse and other property destroyed by the recent fire. If negotiations for property joining the company's wharf are successful the terminus will be enlarged, it is said.

OTTAWA, ONT.—The Dominion Public Works Department has awarded the contract for the construction of the new archives building in Ottawa to W. H. McGillivry, at $50,000. The new building will be erected on MacKenzie Ave., three stories, with basement, 100 × 50 ft., fireproof. Before it is completed it will cost $75,000.

## WATER SUPPLY AND IRRIGATION.

WATERVILLE, ME.—Loring N. Farnum, Engineer and Contractor, 53 State St., Boston, Mass., is laying 20-in. water pipe across Kennebec River at Waterville, Me. The river is about 800 ft. wide and 9 ft. deep at point where pipe is being laid, and has a current of two to three miles per hour.

BAR HARBOR, ME.—We are informed that Bar Harbor Water Co. is to lay 3,500 ft. 20-in. pipe from its equalizing reservoir toward Eagle Lake, to increase the pressure. About 3,000 ft. 6-in. pipe will be laid in the village. The work is to begin as soon as pipe arrives, in October. Freeman C. Coffin, Boston, Mass., is Consult. Engr.

KITTERY, ME.—Residents of this place will try, it is stated, to make contract with York Shore Water Co. to furnish supply for Kittery. A 16-in. water main from Chase Lake to this place would probably be required.

FARMINGTON, N. H.—Village water precinct held a meeting Sept. 20 to consider extension of water service.

FORT ETHAN ALLEN, VT.—Bids are asked until Oct. 11 for the construction of a 150,000-gallon steel tank and trestle. Capt. T. B. Lamoreux, Q. M. (Advertised, Engineering News.)

WILMINGTON, VT.—Committee has been appointed to make preliminary surveys regarding obtaining adequate water supply.

HARDWICK, VT.—Ira A. Shattuck, Village Clk., writes that matter of proposed extension of village water-works is not yet settled. Pumping station to cost not more than $2,500 will probably be established. Village recently voted $15,000 for increasing present supply. C. L. French, Pres., is official in charge.

METHUEN, MASS.—Probable that some extensions of water service will be made soon. Herbert C. Crowell is Supt.

NEWBURYPORT, MASS.—We are informed that local Water Commissioners are not doing any work at present on extension of system, other than the driving of wells, and this work is being done by its own force of workmen.

CAMBRIDGE, MASS.—Council has again been considering appropriation of $246,000 for building new pipe line.

LEE, MASS.—Local reports state that Berkshire Water Co. has had engineer make examination of its dam and water shed, and, if his report is favorable, the dam will be raised next season.

HOLDEN, MASS.—Citizens voted Sept. 22 to provide water supply for town. System could be put in for about $50,000.

MILLDALE, CONN.—Southington Water Co., T. M. McKenzie, Secy., Southington, Conn., has been petitioned to extend its service to this place. Est. cost of 6-in. main with 4-in. branch mains is set at $8,000.

BINGHAMTON, N. Y.—Committee, Geo. C. Bayless, Member, is to consider matter of bringing spring water by gravity system to cottages at Quaker Lake.

NIAGARA FALLS, N. Y.—Board Public Works has been directed to investigate the cost and details of installing a new 6,000,000-gallon pump and for increasing the size of the pumping station and erecting a filtration plant. Walter W. McCulloh is Cy. Engr.

NEW YORK, N. Y.—In his estimate for 1905, John T. Oakley, Comr. Water Supply, Gas and Electricity, asks for $1,115,152 increase over the 1904 appropriation.

BUFFALO, N. Y.—Aldermanic Committee has reported in favor of rejecting bids received for proposed Pearl St. fire boat pipe line. Harrer-Bentley Co., at $22,000 was lowest bidder. The work will be readvertised. F. G. Ward is Comr. Pub. Wks.

NEW YORK, N. Y.—Bids are asked by John T. Oakley, Comr., Water Supply, Gas and Electricity, until Nov. 23 for furnishing and delivering 700 four-nozzle post hydrants and 40 two-nozzle fire-boat connection hydrants for high pressure fire service mains. Bids are also asked until Oct. 12 for furnishing, delivering and laying high pressure fire service mains and appurtenances in three sections of Brooklyn Bids are likewise asked until same date for furnishing and delivering cast iron pipe and special castings. The Commissioner will also receive bids until Oct. 5 for laying water mains in the Borough of Brooklyn.

UTICA, N. Y.—We are informed that surveys are not completed nor have any plans been made as yet for proposed storage reservoir, near Hudson, N. Y., of Utica Gas & Electric Co. It is likely that it will be some months before any construction material will be required. M. J. Brayton is Gen. Mgr., Electrical Dept.

BORDENTOWN, N. J.—The date for receiving bids for constructing water-works system for this place has been changed from Oct. 4 to Oct. 15. The above work is advertised in Engineering News.

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ATLANTIC CITY, N. J.—Bids are asked by ard of Water Commissioners until Oct. 11 for fu 164 4-14-in. gate valves, 403 tons of 4-12-in. pip 0,000 lbs. of special castings. Kenneth Allen, E Louis Kuehnle, Comr. (Advertised, Engineering N

PENNGROVE, N. J.—Penngrove Water Sup has been incorporated with $50,000 capital. Joh Leap, B. F. Filer and J. P. Riggins are interested.

JERSEY CITY, N. J.—Street and Water has asked $20,000 appropriation for new water m ough Summit Ave., from Manhattan Ave., north. Ja Nolan is Street and Water Comr.

GLOUCESTER CITY, N. J.—Contract for reservoir at water-works was let to Patrick A wart for $2,272.

BLOOMFIELD, N. J.—Council rejected all bid recently for 500 water meters and will purchas of each make for test purposes. George Fisher Council.

CAMDEN, N. J.—Bids are asked until Oct. 11 furnishing flexible joint pipe for submerged pipe Cooper's Creek. Joseph Potter, Chn.; L. E. Farn Cy. Engr. (Advertised, Engineering News.)

OXFORD, PA.—Town may bond for $5,000 for ng in new pump.

DELAWARE CITY, DEL.—Bids are asked until 17 for sinking an artesian well, constructing a 30 gal. brick or concrete reservoir and furnishing and g air compressor and receiver, boiler, duplex steam pump, and distilling plant and all necessary connections at Fort Du Pont. Capt. Louis F. Garrard, Jr., Q. M. (Advertised, Engineering News.)

SHENANDOAH, VA.—City will probably install water-works to cost about $18,000. G. J. Strickler is Town Councilman.

COLUMBIA, S. C.—We are informed that an expert commission is examining water sources with a view of advising as to where a supply may be obtained. After decision is reached city official will take up ways and means for doing the work. J. L. Ludlow, Winston, N. C., is Engr.; T. H. Gibbs, Mayor.

ATLANTA, GA.—We are informed that city is figuring on installing coagulating basin in connection with its filter plant. Park Woodward, Gen. Mgr. W. W., is official in charge.

COLUMBUS, GA.—Blue Springs Land, Water & Improvement Co. is having surveys made for relocating pipe line to this city. After this is done, proposition will be made, it is said, to supply this place with mountain creek water.

JACKSONVILLE, FLA.—We are informed that no extensions of city water-works or electric light plant will be made at present. There is, however, some talk of making a bond issue for that purpose. R. E. Ellis is Supt.

JACKSONVILLE, ALA.—Jacksonville City Water-Works Co. has been incorporated with $12,000 capital. Joseph A. Gaboury is Pres. and Gen. Mgr.

MONTGOMERY, ALA.—Bids are asked until Oct. 3 for furnishing between 30 and 40 miles of 4-14-in. pipe with special castings to correspond. R. S. Williams, Cy. Treas. (Advertised, Engineering News.)

BESSEMER, ALA.—Bessemer Water-Works Co., let contract Sept. 15 to Zuber & McLarkey, Ensley, Ala., for construction of its new water-works; work was to commence Sept. 19. Contract calls for laying five miles, 12 and 14-in. mains from Hawkins Springs to Bessemer and construction of 5,000,000 gallon concrete reservoir on Red Mountains. Pipe is to be secured from U. S. Cast Iron Pipe & Foundry Co.

CAMDEN, ALA.—Mayor T. S. Caldwell will bring matter of installing water-works before Council.

MINDEN, LA.—Bids are asked until Oct. 17 for water-works for this town. Bids will be received on cast iron water pipe and special castings; fire hydrants, gate valves and valve boxes; pipe laying and setting of hydrants, valves and boxes; steel water tower and tank complete with foundation; compound non-condensing duplex water-works pump and boiler feed pump; air compressor; two horizontal return tubular boilers, 60 × 16, and one No. 6 Standard heater; brick pumping station and boiler setting; concrete reservoir. James H. Thompson, Engr., 1606 Fisher Bldg., Chicago, Ill.; Walton Fort, Secy. Bd. Aldermen.

CORINTH, MISS.—Special election will be held to vote on proposition of J. W. Taylor, owner of local water-works, to sell same to city for $57,700.

CHATTANOOGA, TENN.—City Water Co., according to reports will lay 1¼-mile 8-in. pipe from water main at Churchville to Arlington Heights.

LOUISA, KY.—W. B. Cox, Mgr., Louisa Water Co., recently incorporated, writes that pipe has been bought from American Spiral Pipe Works, Chicago, Ill.; pump of Rumsey & Co., and gas engine from Columbus Machine Co.

CRESTLINE, O.—Citizens voted to issue $75,000 of bonds for constructing new water-works.

TOLEDO, O.—Board Public Service have recommended water main extensions in eleven streets and avenues.

MAUMEE, O.—Specifications and bidding sheets for water-works system at this place are on file at office of Engineering News, 220 Broadway, New York. Bids are asked until Oct. 10, as advertised in Engineering News.

MARENGO, IND.—Grant & Davis, Marengo, have secured franchise to install water-works. Reservoir will be built and supply pumped from spring.

HUNTINGTON, IND.—Bids are stated to be asked by A. F. Beeker, Cy. Clk., until Oct. 4 for construction of dam for extension of water-works lake.

MANISTIQUE, MICH.—See under Light, Heat and Power.

BAY CITY, MICH.—U. S. Cast Iron Pipe & Foundry Co. was low bidder Sept. 12 for furnishing 8,000 ft. 4-in. and 2,000 ft. 6-in. cast-iron pipe for this city.

QUINCY, ILL.—Citizens' Water-Works Co. has filed incorporation papers. Capital stock is $100,000 and H. C. Sprick, and H. F. J. Ricker, Jr., are directors.

JACKSONVILLE, ILL.—We are informed that city council on Sept. 23 granted a water-works franchise to Chas. W. Mackey and O. N. Gardner of New York, practically giving them the present water-works system in that city; the supply will be obtained from the Illinois River, 19 miles from the city. J. R. Davis is Mayor.

BRUCE, WIS.—Village votes to bond for $7,000 for installing water-works. Work will commence at once.

MAYVILLE, WIS.—Citizens votes to issue $37,000 of bonds for putting in water-works.

SPOONER, WIS.—We are informed that special election will be held Oct. [illegible] to vote on bond issue for new municipal water-works. It is probable that issue will carry. Oscar Clausen, St. Paul, Minn., will probably be Des. Engr. F. Hammill is Pres. Village.

WEST ALLIS, WIS.—Village will vote Oct. 15 on $50,000 bond issue for water-works. B. McQuellan is Chn. Water Com.

MENASHA, WIS.—E. W. Thurston, Cy. Engr., writes that matter of water-works for this city has been indefinitely postponed.

NORTH FREEDOM, WIS.—Contract for constructing water-works for village is stated to have been let to National Construction Co., South Bend, Ind., for $5,385.

CHETEK, WIS.—W. I. Gray & Co., Minneapolis, Minn., were awarded contract for water system here at $6,736. Bids opened Sept. 9.

DAVENPORT, IA.—Council has voted to extend water mains from Lincoln Ave., west in Rockingham Road to Clarke St., and then north to site of Simplex Washing Machine Co.

HAWKEYE, IA.—Following bids were received Sept. 20 (readvertisement) for constructing water-works for this place; (a) including 100 ft. steel tower, (b) including 80 ft. steel tower: Des Moines Bridge & Iron Works, Des Moines, Ia., (a) $6,640, (b) $6,370; W. D. Lovell, Minneapolis, Minn., (a) $6,695, (b) $6,370; Dumegan & Sykes, Minneapolis, Minn., (a) $6,700; J. B. Palmer, Hawkeye, Ia., (a) $6,506; Fremont Turner, Des Moines, Ia., (a) $6,745. M. Tschirgi, Consult. Engr., Dubuque, Ia.

CLARION, IA.—We are informed that this city, which recently voted to issue $15,000 of bonds for water-works, will not call for bids until the bonds are sold. Mayor P. H. Goslin is official in charge.

EVELETH, MINN.—Bids are asked until 8 p. m., Sept. 30, for building extension to water supply system, requiring direct acting compound condensing pump; cross compound condensing fly wheel pump; two 150-HP. boiler and fittings, etc.; 14,000 ft. 10-in. cast iron pipe for 500 ft. head, unloading hauling and laying of same, together with building intake; building of pump and boiler house. Louis Larson, Cy. Clk.

SEAFORTH, MINN.—We are informed that this village will receive bids until Oct. 14 for complete water-works system, consisting wooden tank or steel tower, frame power house, pipe line, gasoline engine and pump. O. Clausen, St. Paul, Minn., is Consult. Engr.

KANSAS CITY, KAN.—Referring to fact that franchise has been asked for water-works here, we are informed that it is proposed to build complete new system if franchise is granted. Geo. B. Inman, Dwight Bldg., Kansas City, Mo., is interested and will be Des. Engr.

HUMBOLDT, KAN.—Proposition to build water-works has been taken up by Council. Favorable action probably will be taken.

OSCEOLA, NEB.—W. D. Crum, Trustee, writes that $25,000 bond issue was voted at recent election for new municipal water-works, and that contracts for the work may be let in December, the plant to be completed some time in the spring. M. A. Earl, Chicago, Ill., is Des. Engr.

WISNER, NEB.—At a recent election the proposition for $5,000 more water bonds for erection of a new stand-pipe and the extension of the water system was voted.

LINCOLN, NEB.—Application in behalf of Secretary of Interior has been filed with State Engineer, whereby Government asks right to tap North Platte River for one of its irrigation projects. It is proposed to tap the river below Sweetwater in Wyoming and to construct reservoir covering 23,000 acres. Contemplated cost is $1,250,000.

PETERSBURG, NEB.—Water-works agitated.

TABOR, S. DAK.—Contract for constructing water works here was let to W. L. Bruce for $6,290.

MILBANK, S. DAK.—Des Moines Bridge & Iron Works, Des Moines, Ia., is stated to have secured contract for constructing water-works for this place for $18,860.

FARGO, N. DAK.—Bids are asked by H. J. Gibson, Cy. Audr., until Oct. 3 for constructing 1,150 ft. 14-in. water main.

GLENDIVE, MONT.—We are informed that bids will be opened some time this winter by Department of Interior for construction of proposed irrigation canal. Source of proposed supply is from Yellowstone River, 100 miles distant, and est. cost of work is $1,800,000. F. E. Weymouth, Newlon, Mont., is Des. Engr.

BUTTE, MONT.—It is stated that steps may be taken soon for municipal water-works. The Amalgamated Water Co. is said to be operating under charter which expired some time ago.

MISSOULA, MONT.—Local reports state that Marvin White and Samuel Dinsmore are promoting irrigation project which will entail expenditure of $600,000. It is proposed to take 800 cu. ft. of water from the Big Blackfoot River some two miles above Bonner and convey it to all portions of the valley by means of a ditch or flume.

MARSHALL, MO.—Bids are asked until Oct. 4 for furnishing and constructing water-works system or part thereof. Owen Ford, Consult. Engr., 710 Security Bldg., St. Louis, Mo.; A. R. James, Cy. Clk.

LANCASTER, TEX.—Citizens' Water Co. has been incorporated with $2,000 capital. F. M. Hammond and C. R. Rea are interested.

EAGLE LAKE, TEX.—Franchise has been granted T. L. Smith, Jr., for water-works system which will cost about $15,000.

EL PASO, TEX.—Local reports state that company has been organized with $500,000 capital to colonize and irrigate the Mesilla Valley of New Mexico. The company will endeavor to induce the government to construct an irrigation reservoir, and this project failing, a dam will be built by private capital.

PITTSBURG, TEX.—City votes to issue bonds for constructing water-works.

DENVER, COLO.—Advices from Denver state that farmers living in the Fossil Creek District, Larimer County, have organized for the purpose of building a new ditch and reservoir at a cost of $27,000.

JULESBURG, COLO.—Arrangements have been completed for building proposed $450,000 Jumbo reservoir. B. M. Camfield, of Greeley, is interested. L. L. Stimson, County Surveyor, will supervise construction. The reservoir site is 20 miles west of Julesburg in Sedgwick County and covers 1,600 acres. It will have a capacity of 1,200,000,000 gals., and will irrigate 30,000 acres of land. Contract calls for the removal of 2,000,000 cu. yds. of earth and the building of about 40 miles of ditch. The reservoir will be located on the north side of the South Platte River, from which it will draw its supply.

SEATTLE, WASH.—Contract for water mains in 13th Ave. was let to Stirrat & Goetz, Inc., for $3,334. Contracts for 12-in. cast-iron water main in Colorado St. was let to F. McLellan & Co. for $8,605, and contract for water main in Fifth Ave., West and Prospect St., was secured by Puget Sound Bridge & Dredging Co., for $4,967.

**GLENDALE, ORE.—Establishment of water-works and electric light plant here considered. D. N. Fish is Mayor.**

TACOMA, WASH.—Contract for 700,000-gallon reservoir for North Springs Water Co., was let Sept. 16 to James Thomas for $5,200.

COLVILLE, WASH.—Council has secured land two miles east of town and it is likely that proposition to issue $15,000 of bonds for water-works will be voted on in December. It is proposed to construct cement reservoir and to connect it with town by steel pipe.

ATHENA, ORE.—Council will consider estimates from Preston-Parton Milling Co. for cost of pumping water for use of city.

CORVALLIS, ORE.—Corvallis Water Co. has made offer to city to supply it with water from Coast Mountains. Cost of work is estimated at $50,000.

GLENDALE, ORE.—Franchise for installing water system here has been granted to A. R. Black.

PORTLAND, ORE.—Water Board has let contract for water pipe to cost about $25,650 to U. S. Cast-Iron Pipe & Foundry Co.

OROVILLE, CAL.—County Supervisors have granted franchise to Butte County Power, Light & Water Co. for laying pipes, etc., for supplying Stirling City. Franchise was also granted for transmitting electricity over streets of same city.

RICHMOND, CAL.—Richmond Water Co. is stated to have increased its capital stock from $10,000 to $300,000 for improvements.

SANTA ROSA, CAL.—L. E. Ricksicker, Cy. Engr., writes that nothing definite has been done by Council yet regarding proposed water-works improvement. Bond election will probably be held in a month or two.

TURLOCK, CAL.—Bids are asked by the Board of Directors of the Turlock Irrigation District until Oct. 11 for the construction of permanent improvements on the main canal, consisting of a retaining wall of concrete masonry about 1,500 ft. long and 9 ft. high, excavating 15,000 to 20,000 cu. yds. of solid rock, cemented gravel and earth; two inverted syphons across Morgan Gulch and Peasley Gulch, consisting of three lines of steel pipe, each 6 ft. in diameter and about 330 ft. and 420 ft. long, respectively, with necessary excavation, back filling, concrete masonry, intakes, gates, culverts, air-valves, blow-offs, etc.; a wooden flume, 8 ft. by 20 ft. and about 325 ft. long on high trestles, etc. R. M. Williams, Pres.; J. L. Brown, Secy. (Advertised, Engineering News.)

LONG BEACH, CAL.—Election may be called to vote on municipal water-works.

FULLERTON, CAL.—Property owners in west part of town contemplate starting private water-works company.

REDWOOD CITY, CAL.—City votes to issue $100,000 of bonds, $35,000 of which are for new water mains, and the remainder for improving streets.

SAN FRANCISCO, CAL.—Local reports state that Tonopah Water Co. has filed a certificate of the creation of a bonded indebtedness of $250,000 for the purpose of constructing a water system at Rye Patch, Nev. E. H. Wheeler is Pres.

UKIAH, CAL.—Town may vote on $50,000 bond issue for municipal water-works.

PRESCOTT, ARIZ.—Bids are asked until Oct. 28 for the construction of a water distributing system and reservoir. Capt. C. Walcutt, Jr., Q. M. (Advertised, Engineering News.)

FORT DOUGLAS, UTAH.—Bids are asked by Capt. Sam'l V. Ham, Q. M., 512 Dooly Bldg., Salt Lake City, Utah, until Oct. 22 for extension of water system at Fort Douglas.

GRANGEVILLE, IDAHO.—Water-works may be installed here soon. Frank McCrane and A. W. Talkington are interested.

TROY, IDAHO.—City has extended time for receiving bids for purchase of water-works bond issue to Jan. 1, according to reports.

SUSSEX, N. B.—Council Water Committee is having surveys made looking to securing water supply for the town.

GUELPH, ONT.—Ratepayers may vote on by-law to issue $5,000 of debentures for installing new filter at the water-works.

CREEMORE, ONT.—We are informed that no satisfactory tenders were received Sept. 19 for furnishing and laying 15,000 ft. cast iron water mains, specials, etc., and work has been deferred for this year. A. H. Watson is Clk.

VICTORIA, B. C.—Bids are asked until Oct. 31 for furnishing lead pipe and brass goods. Wm. W. Northcott, Purchasing Agent.

## SEWERAGE.

LACONIA, N. H.—A petition signed by residents of The Weirs district has been presented to the State Board of Health asking for the installation of a sewer system in that section. The project to build this system was found impracticable several years ago, with an outlet into Lake Winnipesaukee, the natural drainage basin for that section, on account of the resulting pollution of the water supply of Laconia, which is taken from that source. After an examination by city engineer it was decided that the only feasible plan was a system by which the sewage would be pumped up hill and there disposed of. The expense of building and operating such a system has hitherto proved an obstacle.

HUDSON, MASS.—At a special town meeting held on Sept. 21 $50,000 was appropriated for construction of sewers; $100,000 has been previously appropriated for the same purpose. The work has been under way for some time.

NEW YORK, N. Y.—Bids are asked until Oct. 5 by John F. Ahearn, Boro. Pres., for repairing and rebuilding sewers in portions of four streets, Manhattan.

Bids are asked until Oct. 5 by Martin W. Littleton, Boro. Pres., for constructing sewers and sewer basins, Boro. Brooklyn.

TROY, N. Y.—Fifth Ward sewer system estimates have been received by Council, as follows: For main trunk sewer, including cost of land, $73,136; main trunk sewer, including land required for right of way, $66,161; cost of sewerage system at Albia and drainage into trunk sewer, $36,225; cost of sewerage system and drainage into Spring Ave. sewer, $15,435; total, $117,821; cost of constructing tank and installing motors, engines, etc., $11,150; cost of force main, $6,541; cost of separating system of sewerage for house drainage, $31,225; system of sewerage for surface drainage, $12,245; system of drainage into Spring Ave. sewer, $15,435; total, $76,596. No action has been taken in connection with the report.

***Information concerning contracts to be let or supplies to be furnished, and corrections of errors and omissions in published items, are invited. Full details regarding the equipment, tools, etc., required for the proposed improvements are specially desired.***

WATERTOWN, N. Y.—Bids are asked until Sept. 29, 3 p. m., for the construction of about 4,000 lin. ft. of 30, 33 and 36-in. standard and double strength vitrified tile storm water sewer, including necessary manholes, lampholes, catch-basins and connections, concrete inlet and outlet abutments, etc. Henry E. Baker, Cy. Engr.

FULTON, N. Y.—Bids are asked until Oct. 7 for 10,000 ft. of 8 to 20-in. pipe sewers. W. S. Farrington, Engr. (Advertised, Engineering News.)

WEST HOBOKEN, N. J.—Bids are asked by John P. McMahon, Town Clk., until Oct. 5 for constructing sewer connection in Smith St.

EDGEWATER, N. J.—W. Case, Boro. Engr., has prepared general plan for sewer system. Work probably will begin next year.

NEWARK (IRVINGTON STATION), N. J.—Ordinance providing for seven miles of additional sewers has been passed by Irvington Town Council.

JERSEY CITY, N. J.—Bids were opened by Street and Water Board Sept. 19 for sewer work. Following are the lowest bidders: 16th St. sewer, P. Tumilty, Jr.; Beach St. sewer, J. Roosevelt Shanley; Hudson Boulevard sewer, Bernard Gannon.

ALTOONA, PA.—Contract for construction of about 500 ft. of storm sewer, 868 ft. of storm water channel, inlets, manholes, etc., was awarded to Wm. H. Herr, Altoona, at $8,405. Harvey Linton is Cy. Engr.

PORTSMOUTH, VA.—Cost of proposed sewers in Park View is estimated at $60,000. W. Jones Williams, Councilman, may be interested.

TAMPA, FLA.—An election will be held on Nov. 8 to enable the citizens to ratify action of the Council in voting an issue of $500,000 of municipal improvement bonds, which provides $100,000 for sewerage.

BIRMINGHAM, ALA.—Bids are asked until Oct. 5 for constructing various sanitary sewers. Julian Kendrick, Cy. Engr.

YAZOO CITY, MISS.—Board of Aldermen is reported to have authorized issuance of $100,000 bonds for the extension of sewer system, new city hall, paving and other improvements. Kirkpatrick & Johnson, of Jackson, are Engrs.

ABERDEEN, MISS.—Bids are asked until Oct. 5 for purchase of $70,000 of bonds for the construction of a water-works plant and sewer system. S. M. Acker, Mayor.

LOUISA, KY.—W. B. Cox, Mgr. Louisa Water Co., writes that sanitary sewer system will be constructed, work on which will commence by Oct. 25.

MARION, O.—Bids are asked until Oct. 5 for building several small sewers.

ALLIANCE, O.—Council has passed a resolution authorizing a bond issue of $21,000 for the improvement of the storm water sewer system of this city.

FREMONT, O.—The preliminary legislation for the new east side trunk sewer is under way. Estimated cost, $24,969.

CLEVELAND, O.—Bids are asked by Julius C. Dorn, Clk. County Comrs., until Oct. 19 for laying storm sewers in North Woodland road, Newburgh township. W. H. Evers, County Surveyor.

AKRON, O.—Bids are asked until Oct. 4 by C. W. Watters, Secy. Bd. of Pub. Service, for constructing sewers in Chestnut and Sherman Sts. and Steiner Ave.

MANSFIELD, O.—Ordinances have been passed providing for construction of sewers in Maple and Orange Sts. Harry T. Manner, Pres. Council.

DELPHOS, O.—Bids are asked by J. W. Fisher, Village Clk., until Oct. 5 for construction of part of sewer system. G. L. McGibbon, Consult. Engr., Van Wert, O. Plans call for 1,750 lin. ft. of 4-ft. sewer, 1,340 ft. of 36-in., 360 ft. of 33-in., 3,555 ft. of 30-in., and 400 ft. of 24-in.; also a receiving basin 15 × 30 ft. × 8 ft. 6 ins. inside measurement; seven manholes. Sewers are to be constructed of brick and concrete.

DAYTON, O.—Bids are asked until Oct. 29 for purchase of bonds in the amount of $16,000 for portion of the cost of constructing sanitary sewers in Districts 6 and 7. Edward Phillips, Audr.

HANCOCK, MICH.—It is reported that contracts probably will be let soon by Board of Public Works for construction of West Hancock sewer system. Estimated cost, $28,000.

HIGHLAND PARK, MICH.—Whittaker & Sons were awarded contract for two lateral sewers in Gerald Ave. Dist., at $8,303.

RICHMOND, IND.—West Second St. sewer contract was awarded to William H. Rehling & Co. Estimated cost, $15,000.

INDIANAPOLIS, IND.—Board of Public Works has adopted resolution to build Iowa St. sewer. Length will be 22,990 ft., ranging from 5-ft. to 8-in. pipe sewer. It will empty into White River at Adler St.

NEW ALBANY, IND.—Local paper states that Council has ordered constructed a $200,000 sewer system. Bids are asked until Oct. 7 for this work.

PEORIA, ILL.—Bids are asked until 2 p. m., Oct. 5, for construction and installation of a system of sewers (including brick sewer, pipe sewer, manholes complete, flush manholes, catch basins and connections) in the northeast portion of city, to be known as the North Peoria Sewer—East Section. Approximate estimate of materials as follows: 6,875 lin. ft. 8-in. pipe sewer, 7,370 lin. ft. 12-in., 7,580 lin ft. 15-in., 3,045 lin. ft. 18-in., 2,640 lin. ft. 20-in., 4,010 lin. ft. 24-in.; also for egg-shape brick sewers, with 4, 6 and 8-in. walls; 700 lin. ft. of 22-in. × 33-in., 370 lin. ft. 26-in. × 39-in., 395 lin. ft. 24-in. × 36-in., 1,105 lin. ft. 28-in. × 42-in., 765 lin. ft. 32-in. × 48-in., 705 lin. ft. 34-in. × 51-in., 890 lin. ft. 30-in. × 45-in., 720 lin. ft. 36-in. × 54-in., 1,810 lin. ft. 48-in. circular sewer; 99 manholes over pipe sewers, complete; 20 flush manholes, complete; 231 catch-basins and connections, complete. Estimate of cost by the city engineer, $84,198. R. W. Schuch, Pres. Bd. Local Improvements.

DOWNERS GROVE, ILL.—Bids are asked until Oct. 6 for constructing a system of sanitary sewers and a sewage purification works, consisting of the following approximate quantities: 3,000 ft. of 18-in. pipe sewer, 3,260 ft. of 15-in., 3,100 ft. of 12-in., 6,200 ft. of 10-in., 29,000 ft. of 8-in., 204 3-ft. diameter manholes. Purification works will consist of one septic tank built of concrete, one controlling chamber with an automatic device and six filter beds. W. S. Shields, 1715 Marquette Bldg., Chicago, is the Engr. Charles Mochel, Pres. Bd. Local Improvements.

KEOKUK, IA.—Bids are asked until Sept. 30 for building sewer. J. Ross Robertson, Cy. Engr.

MILWAUKEE, WIS.—Bids are asked until Sept. 30, 10.30 a. m., for building several small sewers. Charles J. Poetsch, Chn. Bd. Pub. Wks.

MUSCATINE, IA.—An $11,310 addition will be built to the Papoose Creek concrete sewer, from Eighth St. to Fulliam Ave.

HAVRE, MONT.—We are informed that J. A. Clark, of Spokane, Wash., was, on Sept. 17, awarded the contract for sewer system here, at $29,791. Work aggregates about three miles of 8 to 18-in. pipe sewer, 21,500 cu. yds. earth excavation, 32 manholes, 12 flush-tanks, two masonry outlets, seven catch-basins. C. W. Swearingen is Cy. Engr.

MANISTIQUE, MICH.—G. W. Sturtevant, Fisher Bldg., Chicago, Ill., has been retained as engineer by city to prepare plans and specifications for a water-works and sewage plant. Cost, estimated at $80,000.

OMAHA, NEB.—James P. Connolly was awarded contract for building sewer in district 298, at $7,281, and John F. Dailey the contract for building sewer in district 299, at $1,906.

FARGO, N. DAK.—Bids are asked by H. J. Gibson, Cy. Audr., until Oct. 6 for construction of 1,483 lin. ft. of 12-in. lateral sewers.

VALLEY CITY, N. DAK.—Bids are asked by Council until Oct. 3 for construction of a 12-in. sewer in Euclid Ave. and through Tracy's second addition to the Sheyenne River; also for a 10-in. sewer on Fifth Ave., from Fifth St. to Lincoln Ave., about 1,500 ft. W. T. Craswell, Cy. Audr.

ANADARKO, OKLA.—Bids are asked until Oct. 17 for building a sanitary sewer system. B. E. Beebe, Cy. Clk.

MANITOU, COLO.—Plans are well under way for extending sewer system at an early date, and also for building a dam at the intake. The dam at this point will be 15 ft. high and 50 ft. in length. Town Board has taken favorable action.

ABILENE, TEX.—The City Council has taken up negotiations for a complete system of sewers. Through T. S. Rollins, R. D. Richie, of El Paso, has made a proposition to Council for a system that would cost about $60,000, be put in at the expense of the company, that will get its remuneration from public patronage. Aldermen J. P. Wooten and W. H. Craig are interested.

ST. JOSEPH, MO.—W. H. Floyd, Jr., Cy. Engr., informs us that city recently voted $250,000 of bonds for construction and extension of main sewers. These bonds have been sold. The money available has been apportioned as follows: Extension of Black Snake Creek sewer, $50,000; extension of Sycamore St. sewer, $18,000; extension of Grand Ave. sewer, $30,000; extension of Mitchell Ave. sewer, $60,000; extension of Wyatt Park extension sewer, $10,000, and new sewers for South St. Joseph, $75,000. Sewers will vary from 4 to 15 ft. in diameter and will be of brick and concrete. In some of them bids will be asked for in both ways. The payment for the work will be in cash. Mr. Floyd is preparing plans and specifications for a portion of this work, and when completed bids will be advertised for in Engineering News, probably within two weeks.

PORTLAND, ORE.—Bids for construction of the proposed Brooklyn sewer will be asked when right of way for a small distance is secured. It will cover an area of 1,850 acres, and the main tunnel will be 7,200 ft. in length; its largest branch will be 2,800 ft. long. At its outlet the sewer will be 9 ft. in diameter, while at the junction with its main branch it will be 8½ ft. in diameter.

OAKLAND, CAL.—The Contra Costa Construction Co. has been awarded contract for sewer on East Moss Ave. and West Moss Ave. at $24,135.

PASADENA, CAL.—Land has been acquired for sewer farm site.

NORTH SYDNEY, N. S.—At a recent meeting $25,000 was voted for street improvements and sewer extension.

## GARBAGE DISPOSAL—STREET CLEANING

WASHINGTON, D. C.—Five-year contracts for collection and disposal of garbage and city refuse expires in 1905 and it will be necessary for Congress at its next session to authorize District Commissioners to enter into new contracts. Warner Stutler is Supt. Street Cleaning Dept.

MUNCIE, IND.—Council has selected site and plans are stated to be under way for erection of new garbage crematory.

FORT SAM HOUSTON, TEX.—Bids are asked by L. J. Fleming, Constructing Q. M., until Oct. 18 for construction and erection of garbage crematory and building at Fort Sam Houston.

## STREETS AND ROADS.

BOSTON, MASS.—Contract for grading Furnace Brook Parkway from Adams St. to Blue Hills Reservation has been let to Rowe & Perini, South Framingham, Mass., for $15,604. Bids were received by Metropolitan Park Commission, J. R. Rablin, Acting Engr., Sept. 19. Work requires 10,000 cu. yds. earth grading, 18,000 cu. yds. filling, 500 ft. 12-in. pipe culvert, 1,100 ft. 15-in. pipe culvert, 200 ft. 18-in. pipe culvert, 75 ft. 24-in. pipe culvert, 90 cu. yds. stone masonry, 150 cu. yds. concrete masonry, one 12-ft. concrete-steel arch.

FALL RIVER, MASS.—Frank A. Thurston, Supt. Sts., was ordered by Mayor Grime to macadamize Fountain, William, Lindsey, 12th and Fourth Sts.

NEWPORT, R. I.—J. O. Peckham has been awarded the contract for building 2,220 ft. of road in Middletown by State Board Public Roads. A contract for building 2,340 ft. of road on Block Island has been awarded to town, the price being $2,312.

DANBURY, CONN.—State Highway Commissioner McDonald has awarded the contract for macadamizing White St. to H. J. Mullen, Wood Haven, N. Y., for $6,512. The contract calls for 2,210 ft. macadam and 600 ft. telford.

MIDDLEBURY, CONN.—Highway Commissioner McDonald awarded a contract for 2,700 ft. grading in Middlebury to J. H. Whittemore, of Naugatuck. Cost, $3,429.

PUTNAM, CONN.—Highway Commissioner McDonald awarded to the Selectmen the contract for a gravel road, 4,182 ft. in length.

ALBANY, N. Y.—Bids are asked by Henry A. Van Alstyne, State Engr., until Oct. 11 for improving public highways.

BROOKLYN, N. Y.—Bids are asked by Park Board, Arsenal Bldg., until Oct. 6 to complete plaza around Slocum Monument at Bedford Ave. and Eastern Parkway. John J. Pallas, Pres. Comrs. Parks.

NEW YORK, N. Y.—Bids are asked by Martin W. Littleton, Pres. Boro. of Brooklyn, until Oct. 12 for grading and paving with asphalt several streets.

Bids are asked by Geo. Cromwell, Pres. Boro. Richmond, until Oct. 4 for 1,400 cu. yds. of 1½-in. broken stone or Staten Island syenite and 700 cu. yds. screenings of trap rock to be delivered as Supt. Highways may direct.

NEW YORK, N. Y.—Bids are asked by Louis F. Haffen, Pres. Boro. Bronx, until Oct. 3 for constructing sidewalks on various streets.

WHITE PLAINS, N. Y.—Bids are asked by the Town Board until Oct. 14 for improving six miles of highway by grading and macadamizing. Ffarrington M. Thompson, Supervisor; Jas. J. Shaw, Town Clk., 133 Railroad Ave. (Advertised, Engineering News.)

JERSEY CITY, N. J.—Following were low bidders Sept. 19 for street improvement work: Van Cleef St., Uvalde Asphalt Co.; McAdoo Ave., Henry Byrne.

WELLSBORO, PA.—Specifications for building 12,000 ft. of road in Tioga County are on file in office of Engineering News, 220 Broadway, New York. Bids are asked until Oct. 10.

McKEES ROCKS, PA.—Bids are asked by Borough Clerk, 815 Chartiers Ave., until Oct. 13 for laying a number of brick and cement sidewalks, also for grading, paving and curbing of Margaret St. with vitrified brick.

FAYETTE, PA.—Bids are asked until Sept. 30 for about 6,000 sq. yds. brick paving. Smallwood & Phillips, Engrs., Charleroi, Pa.

NEW ORLEANS, LA.—Council will provide for the repaving of Poydras St.

PADUCAH, KY.—Plans for the reconstruction of Broadway have been completed by City Engineer, Washington. Press reports state that bids are now being received.

AKRON, O.—City Engineer is preparing plans for the extension of Perkins St.

County Commissioners have decided to build a gravel road through Copley swamp. The road is to be a mile and a half long and 12 ft. wide and will have on it a foot of gravel.

MARION, O.—The Board Public Service awarded the contract for paving Leader St. to J. W. Scott for $8,009.

MT. GILEAD, O.—It is reported that bids will soon be asked for paving West High St. with brick and constructing necessary culverts.

MARION, O.—Bids are asked by Board Public Service until Oct. 5 for grading and macadamizing North State St.

CINCINNATI, O.—Bids are asked by Board Public Service until Oct. 4 for the repair of Burnet Ave. by macadamizing roadway.

CINCINNATI, O.—Bids are asked by Board Public Service until Oct. 20 for grading, curbing, paving, etc., on portions of Queen City Ave. and Stanley St.

Bids are asked until 12 o'clock noon, Oct. 6 for grading, curbing and paving with brick on Myrtle Place and Hill St. Geo F. Holmes, Clk.

DAYTON, O.—Council has decided to improve the following streets in order named: Meredith St., curbing; Union Ave., grading and graveling sidewalks and roadway; Curtis Ave., paving with brick, asphalt or macadam, setting new curb stones, etc.; East Fifth St., paving, setting new curb, etc.

FINDLAY, O.—Ordinance to pave on Franklin Ave. with vitrified block was adopted by City Council. Est. cost, $5,516.

SANDUSKY, O.—The contract for paving First St. and Washington Row with block asphalt has been awarded to C. H. Burchnal, of Toledo.

The city has authorized a $27,000 bond issue for paving of Hayes St.

NEWARK, O.—The ordinance to pave Locust St. with brick has passed the Council. Frank T. Maurath is Village Clk.

PAINESVILLE, O.—C. H. Stocking has been awarded the contract of paving St. Clair St. with brick for $14,930.

LORAIN, O.—Practically all the proposed paving in this city is to go over until next spring. Fourth Ave. and Second St. will be paved this fall.

BOWLING GREEN, O.—A $50,000 bond issue is to be negotiated here Nov. 10, the proceeds to be applied to the improvement of public highways.

YOUNGSTOWN, O.—Bids are asked until Sept. 30 by Board Public Service for paving with brick and curbing with stone on a portion of Emily alley. G. T. Prosser, Clk.

TOLEDO, O.—Bids are asked until Sept. 29 by Board Public Service for furnishing material, grading, curbing and repaving with either vitrified blocks, asphalt blocks or Medina block stone on concrete or broken stone foundation portions of Collingwood and Detroit Aves. Harry S. Jones, Secy.

CHEVIOT, O.—Bids are asked until Oct. 1 by Chas. Craig, Village Clk., for constructing cement sidewalks on portions of Harrison Ave. and Crookshank Road.

COLUMBUS, O.—Board Public Service let the contract for improvement of Michigan Ave. to D. E. Sullivan & Son upon an approximate bid of $4,552.

ENGLISH, IND.—Bids are asked by Crawford County Commissioners until 2 p. m. Oct. 3 for construction of rock roads in Whiskey Run township. Plans and specifications on file in office of S. E. McFall, County Audr.

NEW ALBANY, IND.—Bids are asked by Eugene I. Brisby, Cy. Clk., until Sept. 30 for grading and paving with vitrified brick on a portion of East Sixth St.

BROWNSTOWN, IND.—Bids are asked until Oct. 13, change of date, by County Commissioners for constructing Seymour and Jonesville gravel road in Hamilton Township; extending Meyer Free gravel road in Redding and Hamilton Townships; also Dalton gravel road in Carr Township, in all about 4½ miles. Asbury H. Manuel, County Audr.

BEDFORD, IND.—Bids are asked until Oct. 8 by County Commissioners for constructing gravel and macadamized roads in Flinn and Shawswick townships, in all about 36,466 ft. Walter G. Owens, County Audr.

EVANSVILLE, IND.—Bids are asked until Oct. 3 for about 19,000 sq. yds. brick pavement. Aug. Pfafflin, Cy. Engr.

AUBURN, IND.—Barber Asphalt Paving Co. received a contract to resurface 32,000 yds. pavement here.

BROWNSTOWN, IND.—Bids are asked by Jackson County Commissioners until Oct. 4 for construction of four miles and 2,654 ft. gravel road. A. H. Manuel, County Audr.

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INDIANAPOLIS, IND.—The Board Public [illegible] will soon advertise for bids for construction of [illegible] walks in Miller St., and for cement walks [illegible] in Sugar Grove Ave.

CRAWFORDSVILLE, IND.—H. B. Hulett, [illegible] is preparing to advertise for the construction [illegible] large amount of cement sidewalks.

BROOKVILLE, IND.—Thos. Bridge's Son, [illegible] Ind., was awarded the contract for sidewalk, [illegible] and gutter improvements by Town Board, Sept. 22, [illegible] 237. Karl L. Hanson is Cy. Engr.

MUSKEGON, MICH.—Council is considering [illegible] tion of paving Peck St. with crushed stone. Co[illegible]

KALAMAZOO, MICH.—A new park is to be [illegible] at Academy St. and Michigan Ave. J. F. Muffl[illegible] interested.

AURORA, ILL.—Two bids for paving Downer [illegible] brick, were opened by Board Local Improvement [illegible] bids were rejected as being above the estimate [illegible] Hallett bid $2.40 per sq. ft. and J. H. Tolman bi[illegible] New bids will be advertised for.

SEDALIA, MO.—Bids are asked until Oct. 17 for [illegible] Osage Ave. C. E. Baker, Cy. Clk.

STERLING, ILL.—The contract for paving West [illegible] St., 13 blocks, and Avenue B, was awarded to T[illegible] O'Rourke, City, for $33,008. M. E. Wilger is Cy. Clk.

MILWAUKEE, WIS.—The Milwaukee Monument Co. has been awarded a contract by Board Public Works to [illegible] pave a portion of West Water St.

WAVERLY, IA.—A complete resurvey to establish the street line and to revise and extend the gravel system will be commenced at once by Ralph B. Slippy, Engr. of Waterloo, Ia.

ST. PAUL, MINN.—Board Public Works is considering the curbing and improving of St. Anthony Ave. Est. cost, $10,440.

TOPEKA, KAN.—The County Commissioners have decided to extend the West Sixth Ave. road macadam half a mile west. The contract for crushing stone was awarded to W. P. Wilcox. The extension of the macadam will be 12 ft. wide. After this is complete the Rochester road will be extended to Rochester cemetery.

WICHITA, KAN.—Council has instructed City Clerk to advertise for bids for improvements for Riverside Park. Est. cost, $7,645.

OMAHA, NEB.—It is reported that bids will be received by Board Public Works until Oct. 10 for repaving North 16th St., 22,320 sq. yds.

FREMONT, NEB.—The Board of County Supervisors has ordered two new roads established, one in Pebble township and the other in Cotterell township.

ST. LOUIS, MO.—Bids are asked until Oct. 1 for constructing vitrified brick roads at U. S. Clothing Depot here. Address Maj. Thos. Cruse, Depot Q. M.

WEBB CITY, MO.—Bids are asked until Oct. 3 for paving with vitrified brick on Church and Webb Sts.

SEATTLE, WASH.—The bid of A. D. Miller, City, $25,648, has been accepted for constructing the road to Rainier National Park. Bids were opened Aug. 3.

OKLAHOMA CITY, OKLA.—City Council passed resolutions to pave several streets. T. A. Blaise, Cy. Clk.

SACRAMENTO, CAL.—The Board of Supervisors favor an appropriation of $15,000 toward the cost of a levee boulevard extending along the east bank of Sacramento River, between this city and Freeport.

OAKLAND, CAL.—Piedmont Paving Co. was awarded the contract for macadamizing 64th St. F. R. Thompson is Cy. Clk.

HAYWARD, CAL.—The contract for constructing the foothill boulevard was awarded by Supervisors to the Ransome Construction Co. for $300,000.

OAKLAND, CAL.—Board of Supervisors adopted a resolution ordering the County Surveyor to draw up specifications for macadamizing the county road, 1,000 ft.

RIVERSIDE, CAL.—Bids are asked by Clerk of Board of Supervisors until Oct. 5 for graveling about one mile of highway.

SALT LAKE CITY, UTAH.—Barber Asphalt Co. was the lowest bidder for paving East South Temple St.

LONDON, ONT.—Bids are asked until Oct. 3 for laying about 10,000 yds. of asphalt pavement on Queens Ave. Ormsby Graydon, Cy. Engr. (Advertised, Engineering News.)

## MANUFACTURING PLANTS.

SKOWHEGAN, ME.—Edwin Gledhill, Mgr., Marston Mills, City, has organized the Maine Spinning Co., which has a capital stock of $100,000. A spinning mill will be established here this fall.

BERLIN, N. H.—Harkins & Mahern, proprietors of the Berlin Iron & Brass Foundry Co., Berlin, are building an addition to their plant, 40 × 50 ft., which will be equipped with new machinery. The first floor will be fitted up as a machine shop and second floor as a pattern shop and wood working department.

NEW BEDFORD, MASS.—The Mount Pleasant Mill has been purchased by Chas. D. Owen, of Providence, and Chas. O. Dexter, of Hamilton, Ont. Special cottons will be manufactured. A large addition will be built and new machinery has been ordered.

LYNN, MASS.—A new shoe factory is to be erected by P. Lennox at Harrison Court and Market St. The building will be 40 × 104 ft., six stories and a basement. Wheeler & Betton, Archs., 59 Exchange St.; James E. Mason, mason; Haskell & Sutherland, builders, New Park St.

OAKLAND, R. I.—Preparations are being made for the erection of an addition to the Oakland Worsted Mill. The building will be 120 × 65 ft., one story high, with a basement, and is being built to furnish additional room for the weaving and finishing departments.

NEW BRITAIN, CONN.—The Hart & Cooley Mfg. Co. is to erect two one-story factory buildings, 50 × 104 and 30 × 67 ft., respectively.

BUFFALO, N. Y.—The bids for the construction of new building to be erected by Larkin Soap Co. are as follows: J. H. Tilden, 12 Henry St., $84,672; B. I. Crooker, 4 Builders' Exchange, $86,189; H. Schafer & Son, 578 Elm St., $87,865; Chas. Berrick's Sons, 1151 Main St., $91,995; Neiderpruen, Gibbs & Schaff, $93,500; Mr. Muller, Chicago, Ill., $104,000.

NIAGARA FALLS, N. Y.—The Niagara Falls Brass Works has been incorporated with a capital of $20,000 and will make brass, bronze and aluminum castings. A temporary plant will be established in Whitney Ave. and new building erected later. John Lebherz, formerly with Frick Works at Waynesboro, Pa., will be at the head of the concern.

PATCHOGUE (L. I.), N. Y.—The Patchogue Mfg. Co. proposes to erect a building, two stories, 50 × 50 ft., which will be connected with the main building by an iron bridge. The new building will be used as a bleachery.

CAMDEN, N. J.—Glenn Riddle Mfg. Co. has been incorporated. Capital stock, $10,000. Incorporators: James H. Billington, F. Ashley Blythe, Lewis Cooper, Chas. J. Fox, Norman P. Sloan, all of Philadelphia, and Nicholas W. Steele, of Baltimore. The company is to acquire lands for the establishment of factories with a view to manufacturing woolens and other fabrics.

BRADFORD, PA.—Henry Leon is arranging for an enlargement of his silk mill, with the intention of doubling its capacity. Board of Trade has the matter in charge.

PHILADELPHIA, PA.—John W. Gill & Co., Heed Bldg., have been awarded the contract for a carriage factory at 1643-45 North 12th St., for Fisher & Son; brick, three stories, 38 × 100 ft.

PHILADELPHIA, PA.—A. R. Raff, 1635 Thompson St., has been awarded the contract for a two-story addition to a factory for the American Fork & Hoe Co.

SHENANDOAH, PA.—Emil Hartmann, Engr., 514 Walnut St., Philadelphia, is preparing plans for a new brewery at this place. Will consist of stock and storage houses, beer house, boiler and engine house, bottling house, offices and stables. Brick and steel, fireproof, 5 and 2 stories. Cost, $100,000.

JOHNSTOWN, PA.—P. Laville, Gen. Mgr. Lorain Steel Co., writes us that the contract for steel structure for additional buildings has been awarded to the American Bridge Co. Contracts for all other work has been let to local contractors. There will be no addition to power plant.

WASHINGTON, D. C.—Frank H. Jackson, Arch., 1419 G St., N. W., is preparing plans for a printing plant for the Crane Co.

FARMVILLE, VA.—The Continental Mfg. Co., capital $50,000, has been chartered to manufacture barrels, staves, etc. W. G. Dunnington, President; Walter H. Robertson, Lynchburg, Vice-President; H. J. Hillsman, Secretary and Treasurer.

RICHMOND, VA.—L. H. Jenkins informs us that the contract has been awarded for 2-story addition to plant for printing department. Electric power will be used and low pressure steam. Individual motors have not been bought. G. W. Lambert, City, is Arch.

SPRAY, N. C.—The Spray Woolen Mills will install dyeing machinery.

ROCKY MOUNT, N. C.—The Atlantic Coast Line Railroad Co. will double the capacity of its railroad shops located here.

COLUMBIA, S. C.—The Olympia Cotton Mills will erect a building in which to open and spread their cotton. Plans and specifications are being prepared by a local architect.

HARTWELL, GA.—It is stated that an ice factory will be erected here. Asa G Candler, Jr., can probably give information.

COLUMBUS, GA.—M. Craven, Springfield, Mass., is willing to erect a woolen factory here if the citizens will furnish part of the capital.

FLOWERY BRANCH, GA.—A stock company has been formed for the erection of a cotton warehouse here, to be constructed of brick.

HUNTSVILLE, ALA.—The Merrimack Mfg. Co. will erect a new mill. Cost, about $1,000,000.

JENNINGS, LA.—S. L. Cary & Sons will erect a cotton gin here.

CLIFTON, TENN.—A foundry will be established here, with C. J. Sawyer, president; A. Taylor, vice-president; C. H. Johnson, general manager.

HARRIMAN, TENN.—The repair shops and yards of the Tennessee Central at Emory Gap will be moved to Harriman in a short time. City will donate a site. A large passenger shed will also be erected at an early date.

TAMPA, FLA.—Frank Sanchez will establish a cigar factory here.

YOUNGSTOWN, O.—It is reported that the Republic Iron & Steel Co. proposes to expend $1,500,000 here, building wire, sheet and tube mills.

CANTON, O.—The Arlington Mfg. Co., paint manufacturer, is erecting a new factory building including a power house.

CANTON, O.—The Kiddy Boiler Works Co. is preparing to erect a new plant. It is the intention to erect a building 60 × 250 ft. and three stories high, with a wing 60 × 80 ft., for a foundry. A cupola, having a capacity of 15 tons per day, will be erected.

CLEVELAND, O.—It is reported that the City Ice Delivery Co, Merwin St., is planning to erect a plant to cost about $125,000.

ANDERSON, IND.—Grafton Johnson is preparing to invite bids for construction of a canning factory in this city.

INDIANAPOLIS, IND.—The Contractors' Brick Co. has incorporated with $250,000 cap. stock. A plant will be constructed at once to manufacture bricks. Fred Garssart is Secy.

DETROIT, MICH.—The following contracts have been awarded by Field, Hinchman & Smith, Engrs.: For the American Suction Gas Producer Co., Lansing, Mich., factory building to W. T. Britten, of Lansing; one five-ton traveling crane to Northern Engineering Works; for Cobbs & Mitchell, Cadillac, Mich., steel roof for boiler house, to H. B. Lewis; for Bagley Land Co., one 7½-HP. Northern motor, and one 15-HP. General Electric motor.

JACKSON, MICH.—Factory buildings and offices of the Pacific Starch Co. were destroyed by fire. Loss, $75,000. The company has not determined the matter of rebuilding.

SOUTH HAVEN, MICH.—The Cable-Nelson Piano Co., of Chicago, has purchased a site here upon which to erect a factory.

LOWELL, MICH.—The Parks Mfg. Co. has been formed here and capitalized at $10,000. The stock is owned by Loveland & Hinyan, D. R. Whitney, D. H. Owen and C. Parks. They will manufacture specialties. The company has purchased a lot at Hudson and Main Sts., and ground has been broken for a cement foundation, 100 × 30 ft.

DES MOINES, IA.—The Capital City Woolen Mills Co. is considering the erection of a large addition to their plant. Est. cost, $35,000.

MINNEAPOLIS, MINN.—D. W. Dozier, Ch. Engr. Twin City Rapid Transit Co., writes us that the plans for new car shops have been completed, but no contracts let. Reinforced concrete will be used in buildings. Chas. Ferrin, care of railway company, is the architect.

LINCOLN, NEB.—The Lincoln Ice & Cold Storage Co. expects to erect a storage plant of about 350,000 cu. ft. capacity and will require dynamos, electric pumps and elevators.

CARTHAGE, MO.—Contracts have been signed here between the Carthage Cotton Mills Co. and T. C. Thompson & Bros, of Birmingham, Ala., for the erection of a cotton factory building, four stories, 70 × 200 ft., after plans and specifications by W. B. Smith Whaley & Co., Archs, Columbia, S. C. The Carthage Cotton Mills was organized some few weeks ago with an authorized capital of $600,000. Its officers are leading business men of Carthage, including Charles O. Harrington, as secretary. Witten McDonald, of Kansas City, is president. He is the promoter of the big mills proposed for erection in the Kansas City territory.

AUSTIN, TEX.—J. D. Sayers, B. M. Worsham and others will erect cement works near here.

DENTON, TEX.—The Alliance Milling Co. has increased its capital from $100,000 to $160,000.

FORT WORTH, TEX.—A company was organized here to build a bolt and nut factory at a cost of $200,000. The plant will be located in south part of city. The company will at once apply for a charter. Employment will be given to about 400 people.

EVERETT, WASH.—The Everett Brewing Co. will begin the erection of a brewery to cost $100,000 about Nov. 1. Ice plant and bottling works will be erected in connection with plant.

SEATTLE, WASH.—Jacob Furth, C. J. Smith, of Seattle, and others, have incorporated the North Yakima Beet Sugar Co., with $1,000,000 cap. stock. A plant will be built at North Yakima, and company plans construction of other plants at Prosser, Wenatchee and Puyallup later.

ABERDEEN, WASH.—The Hollenbeck Gun Co., Wheeling, W, Va., has written Mayor West asking what inducements could be offered for the location of their factory. The firm will spend $100,000 in a new location.

TACOMA, WASH.—The Albers Bros. Milling Co. is erecting a 5-story brick cereal mill, 75 × 100 ft. Cost, $25,000. The company writes us they have not decided on the power and are in the market for mill machinery.

TACOMA, WASH.—W. H. Reid, Secy. West Coast Wagon Co., writes us that plans are being prepared for a 3-story brick factory, 90 × 120 ft. Cost of building, $20,000, and the equipment, $6,000. Electric power will be used and a forming machine, heavy drill press and lathe will be installed.

WINDSOR, CAL.—Windsor people are talking of organizing a stock company and putting up a cannery.

OAKLAND, CAL.—O. McHenry has secured a site on First St. and will build a $50,000 cold storage plant.

FRESNO, CAL.—The stockholders of the Consumers' Ice Co. have decided to triple the size of plant here. The new plant will be built at present site of the company's building on the spur of Santa Fe track. It will cover 60,000 sq. ft. of ground. C. S. Hill, Jr., is Pres. Bids for construction will be called for at once.

HANFORD, CAL.—The California Condensed Milk Co. is contemplating putting in a butter-mixing plant.

## MISCELLANEOUS CONTRACTS.

ROAD GRADER.—Pomona, Cal.—Bids are asked by A. N. Harris, Cy. Clk., until Oct. 3 for a road grader.

CANAL.—Ottawa, Ont.—Henry McLeod, Government Engineer, is stated to have begun surveys for extension of Rideau Canal.

OIL PIPE LINE.—Los Angeles, Cal.—Franchise over certain streets for pipe line for crude oil has been granted Salt Lake Oil Co.

DREDGING.—Ovid, Mich.—Officers of this town and Shiawassee County are considering dredging of Maple River, at cost of about $40,000.

FIRE DEPARTMENT EQUIPMENT.—Dublin, Ga.—City votes Oct. 10 on $45,000 bond issue, $5,000 of which is to be for the improvement of fire department.

DAM, ETC.—Lamar, Colo.—Contract for dam across Arkansas River and headgate for Lamar Canal has been let to Pueblo Bridge Co., Pueblo, Colo., for $20,000.

DREDGING, ETC.—Sandusky, O.—G. A. Boeckling has let contract to Detroit Dredging Co., for making system of lagoons at Cedar Point at est. cost of $25,450.

DITCHES.—Hampton, Ia.—County Supervisors have ordered construction of two new ditches in Morgan and Oakland Townships. W. W. Hale, Alden, Ia., is Engr.

FIRE BOATS.—New York, N. Y.—Nicholas J. Hayes, Fire Comr., has asked Board Estimate and Apportionment for $375,000 appropriation for three new fireboats.

GLASS ROOF.—Portland, Ore.—North Pacific Terminal Co., is stated to be considering plans for spending about $60,000 for glass roof over the tracks in Union Depot.

RETAINING WALL.—Akron, O.—Geo. W. Carmichael & Co., Akron, has contract for constructing 7 ft. concrete retaining wall along Summit Alley for Erie R. R. Co.

DRAINAGE DITCH.—Sterling, Ill.—Contract for digging Hart lateral ditch, requiring removal of about 38,000 cu. yds. dirt has been let to C. C. Jacobs, Amboy, Ill.

FIRE ALARM SYSTEM.—Ellis Island, N. Y.—Bids are asked by William Williams, Comr. Immigration, Oct. 7 for installing village fire alarm system on Ellis Island.

SNOWSHEDS.—Spokane, Wash.—Contract for building snowsheds in Cascades west of Wellington, Wash., for Great Northern Ry. has been let to Porter Bros., Spokane.

TELEPHONE COMPANY.—Nacogdoches, Tex.—Nacogdoches Southeastern Telephone Co. has been organized with $10,000 capital. Robert Lindsay is an incorporator.

TELEPHONE COMPANY.—Jacksonville, Tex.—Jacksonville Telephone Co. has been incorporated with $15,000 capital stock. W. H. Sorry and M. L. Sorry are interested.

STREET FLUSHING MACHINES.—Columbus, O.—Bids are asked by Board Public Service, Charles H. Frank, Secy., until Oct. 3 for furnishing two street flushing machines.

DREDGING.—Albany, N. Y.—Bids are asked by Henry A. Van Alstyne, State Engineer and Surveyor, until Oct. 3 for dredging harbor at mouth of Scriba Creek, Constantia.

PIERS.—New York, N. Y.—Bids are asked by Maurice Featherson, Dock Comr., until Oct. 6 for building two new piers with lateral extensions between W. 12th and W. 19th Sts.

***Information concerning contracts to be let or supplies to be furnished, and corrections of errors and omissions in published items, are invited. Full details regarding the equipment, tools, etc., required for the proposed improvements are specially desired.***

WAREHOUSES, ETC.—Halifax, N. S.—Plant Steamship Co. has made arrangements to rebuild its warehouse and other property destroyed by fire recently. Terminal may be enlarged.

DREDGING.—Washington, D. C.—Bids are asked by Bureau Yards and Docks, until Oct. 22 for dredging about 65,000 cu. yds. at Norfolk, Va., Navy Yard. M. T. Endicott, Ch. Bureau.

REPAIRING WHARF.—San Francisco, Cal.—Harbor Commissioners have let contract for repairing and repiling Folsom St. wharf No. 2 to Dundon Bridge & Construction Co., for $3,595.

AVIARY.—New York, N. Y.—Conrad Hewitt, 1123 Broadway, New York, at $19,546 was low bidder Sept. 22 for material and labor for erecting aviary in New York Zoological Park.

SUBWAY.—Rochester, N. Y.—Contract for building subway under Erie and Lehigh tracks at end of extension of South Ave. trolley line has been let to James Hart Co., 256 Broadway, New York.

RIPRAP.—New York, N. Y.—Bids are asked by Maurice Featherson, Dock Comr., Pier A, Battery Pl., until Oct. 7 for furnishing, delivering and putting in place about 20,000 cu. yds. riprap stone.

ARCHES, CULVERTS, ETC.—Knoxville, Tenn.—Thomas Moore and J. Mack Johnson, Knoxville, are stated to have contract for constructing culverts and arches for five miles of new line of A., K. & N. R. R.

DRAINAGE DITCH.—Onawa, Ia.—Supervisors have voted to construct joint Monona-Harrison County ditch. Madison H. Caffee, Moorhead, Ia., and S. B. Echelman, Woodbine, Ia., are Commissioners.

BOILER.—Washington, D. C.—Bids are asked by M. J. Rosenau, Custodian, Hygienic Laboratory, until Oct 3 for supplying and installing steam boiler, with fittings, trimmings and connections.

DRAINAGE WORK.—Alexandria, La.—New drainage district may be formed to secure reclamation of 23,000 acres of land at cost of about $27,000. I. W. Sylvester, C. E., Alexandria, La., made the surveys.

ELEVATOR.—Washington, D. C.—Bids are asked by Supervising Architect until Oct. 19 for installation of hydraulic freight lift in U. S. Custom House, St. Paul, Minn. James Knox Taylor, Supervising Arch.

TELEPHONE SYSTEM.—Bishop, Cal.—Geo. Norton of Santa Barbara, Cal., has applied for a franchise for the installation of a telephone system here. The system will be installed as soon as the franchise is granted.

CRIB REMOVAL.—Cleveland, O.—Board Public Works received bids Sept. 16 for removal of two temporary cribs used during construction of new water-works tunnel. Standard Contracting Co. was low bidder, at $28,000.

OIL PIPE LINE.—Crowley, La.—Construction of an oil pipe line from the Jennings oil field to Atchafalaya River is under consideration. It would be about 67 miles long and the cost is est. at between $250,000 and $300,000.

FENCES AND GATES.—Chattanooga, Tenn.—Bids are asked until Oct. 14 for constructing fences and gates also two ornamental entrance gates at Chicamauga Park, Ga. Capt. H. W. French, Q. M. (Advertised, Engineering News.)

DRAINAGE CANAL.—New Iberia, La.—Bids are asked by New Iberia Southern Drainage Board until Oct. 10 for construction of drainage canal from New Iberia to Bayou Carlin, ten miles. J. L. Haase, Secy.; Leon Lemaire, Pres.

LAUNCHES.—New York, N. Y.—Police Department has let contract to Electric Launch Co., Bayonne City, N. J., for three steam launches to cost $6,700 each, and as soon as these are completed contracts will be let for three more.

CONCRETE DRAIN.—Boston, Mass.—Contract for constructing concrete drain for Boston Navy Yard has been let to Jones & Meehan, 1 Beacon St., Boston, Mass., for $8,970. Bids were opened by Bureau Yards and Docks Sept. 17.

DRAINS, CULVERTS.—Cincinnati, O.—Bids are asked by County Commissioners until Oct. 8 for constructing drains and box culverts and approaches thereto on the Skillman Road, Springfield Township. Eugene L. Lewis, County Audr.

SUBWAY.—Cincinnati, O.—Plans have been made under the auspices of the Union Terminal Co., and will be submitted to the various railroads, for a 12-track subway, beginning at a point Eggleston Ave. and to extend under center of city.

BREAKWATER.—Ottawa, Ont.—Bids are asked by Fred. Gelinas, Secy. Dept. Pub. Wks., until Oct. 13 for constructing breakwater at Robinson's Island, Rustico Harbor, Queens County, P. E. I. J. B. Hegan, Res. Engr., Charlottetown, P. E. I.

LEVEE.—Marksville, La.—Bids are asked by Commissioners Red River and Bayou des Glaisis Levee and Drainage District, until Oct. 19 for construction of new levee about 23 miles long and containing 2,000,000 cu. yds. Saml W. Gardiner, Pres.

TELEPHONE SYSTEM.—Dallas, Tex.—F. B. McElroy, Dallas, and S. A. Jones, Chicago, Ill., have asked for franchise to construct and operate telephone system here. If franchise is secured company proposes to spend at least $750,000 for construction work and material.

PNEUMATIC TUBE.—Chicago, Ill.—The Universal Pneumatic Transmission Co., which has installed pneumatic tube systems in some of the local business houses, proposes, it is stated, to establish 18-in. pneumatic tube between this city and Milwaukee. The distance is about 85 miles and cost of line is placed at $5,000,000. The company will, it is stated, soon ask Chicago Council for franchise in that City.

STEEL BOAT.—Detroit, Mich.—Great Lakes Engineering Works has secured contract from G. A. Tomlinson, Duluth, Minn., for building 500 ft. long, 52 ft. wide and 30 ft. steel freighter, to cost $330,000. Ship is to be equipped with marine water tube boilers and vertical triple expansion engines of 1,800 HP.

EXCAVATION, ETC.—Pittsfield, Ill.—Bids are asked by Commissioners Sny Island Levee Drainage District, Pittsfield, until Oct. 5 for clearing, deepening, widening and straightening the Sny Canals. Work requires excavation of about 717,000 cu. yds. earth. Web. P. Bushnell, Engr., Quincy, Ill.

STEEL WORK.—Washington, D. C.—Following were three lowest bidders Sept. 24 for structural steel work for power plant, coal storage, Washington Navy-Yard: McClintic-Marshall Construction Co., Pottstown, Pa., $9,850; Penn Bridge Co., 312 Bond Bldg., Washington, D. C., $9,883; Keystone Structural Co., 810 Harrison Bldg., Philadelphia, Pa., $10,150.

STEAMER.—Washington, D. C.—Bids are asked by the War Department until Oct. 12 for constructing and equipping a steamer for harbor service. Chauncey B. Baker, Q. M. (Advertised, Engineering News.)

PIER.—Wildwood, N. J.—Ocean Pier Co., according to reports, will open bids Oct. 1 for construction of $100,000 pier at foot of Poplar Ave. Herman Buckham, Chas. A. Reynolds and Levi S. Walton, Camden, N. J., are stated to be interested.

RETAINING WALL, ETC.—Boston, Mass.—Plans and specifications for retaining walls and roof for Ash St. incline of Washington St. tunnel are on file at office of Engineering News, 220 Broadway, New York. Bids are asked until Oct. 4 as stated in Engineering News, Sept. 22.

BATTLESHIP.—Washington, D. C.—Bids are asked by Navy Department until Dec. 15 for construction of battleship "New Hampshire." The ship is to be 450 ft long and 77 ft. beam. The engines will be of vertical twin-screw, four cylinder, triple expansion type of 16,500 HP. There will be 12 water tube boilers.

RIPRAP.—New London, Conn.—Following bids were received Sept. 27 by Lt. Col. Chas. F. Powell, U. S. Engrs., for placing about 10,000 tons riprap for repairing jetties at mouth of Connecticut River: E. S. Belden & Sons, Hartford, Conn., $12,300; Thomas A. Scott, New London, Conn., $14,800; Estate of John Beattie, Leetes Island, Conn., $19,500; Humphrey Toomey, Guilford, Conn., $12,375.

TUNNEL.—San Francisco, Cal.—Plans are reported to have been completed some time ago for proposed tunnel of Southern Pacific R. R., through the Sierra Nevada Mountains. The recent sale of $40,000,000 of new Southern Pacific stock lends color to the report that the improvement is about to be ordered. The tunnel is to be about 33,000 ft. long, and the cost is roughly estimated at $10,000,000.

BOILERS, MECHANICAL STOKERS.—Rochester, N. Y.—Bids are asked by the State Commission in Lunacy, Albany, until Oct. 5 for furnishing and installing four 150 HP. boilers complete, also mechanical stokers for the same. Steam and return mains from the new boiler house to Old Group and heating in store house at the Rochester State Hospital. T. E. McGarr, Secy. (Advertised, Engineering News.)

LEVEE WORK.—New Orleans, La.—State Board of Engineers have recommended for acceptance bids of following parties for levee work: C. D. Leeper, Milan levee; Frank Brou, Whitney levee; Louis Faucheux, McDonoghville levee; Louis Faucheux, Deer Range levee to Pointe Celeste levee; I. S. Robbitt, Bel Air levee; A. Leopold, St. Thomas Church levee; B. & B. Rousselle, Upper Buras levee; Michael Cullen, Buras Church levee and Lower Buras levee.

TIMBER, PILING, ETC.—New Orleans, La.—Bids are asked by the Sewerage and Water Board, 602 Carondelet St., until Nov. 30 for the construction of about 16,000 ft. of wood-lined canals, consisting of about 775,000 ft. of B. M. creosoted pine lumber, 1,370,000 ft. B. M. yellow pine and cypress, 143,000 ft. yellow pine piling, 145,000 cu. yds. excavation, 390 cu. yds. concrete and 21,000 lbs. of steel rods. F. S. Shields, Secy. Geo. G. Earl, Gen. Supt. (Advertised, Engineering News.)

LIGHT HOUSE AND FOG SIGNAL.—Washington, D. C.—By the terms of act of Congress, approved April 28, 1904, Albert F. Eells, 107 Elizabeth St., Norwich, Conn., has been authorized to construct a light house and fog signal at outer side of outer Diamond Shoal, coast of North Carolina, at Cape Hatteras. According to terms of act, construction work is to begin within 12 months of approval of act. If the light house and fog signal prove satisfactory at end of five years, Capt. Eells is to receive $590,000.

MONO-RAIL ROAD.—Baltimore, Md.—It is stated that American Mono-Rail Co., New York, will purchase patent of E. L. Tunis, Baltimore, and will employ his model as basis for construction of a road. It is said that a five-mile track and trolley poles for the testing of the monorail will be erected between Baltimore and a point on the Patapsco River within the next two months. An actual line, over 100 miles long, carrying passengers and freight, will, it is said, be in active operation as soon as the necessary rails can be laid and the requisite cars constructed.

ELECTRICAL SUPPLIES, ETC.—Washington, D. C.—Bids are asked by Bureau Supplies and Accounts, until Oct. 11 for furnishing naval supplies for navy yards at Norfolk, Va.; Port Royal, S. C., and Charleston, S. C. Among the supplies desired is a quantity of steel conduit, Greenfield metallic conduit, conduit fittings, arc lamps, Jandus arc lamps, incandescent lamps, arc lamp globes, carbons, insulating tape, rubber-covered wire, lamp cord, etc., bracket fans and accessories, starting panels, enclosed fuses, automatic switches, outlet boxes, motor drive outfit for Long & Allstatter horizontal punch, wattmeters, miscellaneous electrical supplies, fire sand, Lumberton sand, brick, fire brick, floor tiles, rubber tiles, locks, screws, wrenches, letters and figures, cutter heads, taps, etc., cypress poles, lignum-vitae, Tobin bronze, ingot copper, bar iron, bar steel, plain and galvanized sheet steel, sheet zinc, hose, brass pipe, condenser tubes, steel boiler tubes, iron pipe, pipe fittings, valves, tight-joint fittings, copper pipe, etc., Davidson steam pumps, Blake duplex pumps, Ward steam generators, tubular boiler and erection of magazine. H. T. B. Harris, Paym. Gen., U. S. N.

DRILLS, MACHINERY, ETC.—Washington, D. C.—Bids are asked by Bureau Supplies and Accounts until Oct. 11 for furnishing naval supplies at New York Navy Yard, to include a quantity of anchors, collision mat chains, motors, generating sets, conduit and fittings, Weston voltmeters, Leeds and Northrup photometer, etc., single and twin conductor, telephone wire, induction coil, lightning arrestors, cut-out boxes, fire brick, fire clay, red brick, sand, nuts, rivets, locks, saws, lathe chucks, pipe wrenches, drills, Brown & Sharpe's tools, screws, files, miscellaneous supplies, cupola blocks, foundry flasks, Eureka snap flasks, hydraulic cylinders, vises, die blocks, jointing machine, band saw, knife grinder, boring machine, scroll saw, gap lathe, Sturtevant pressure blower, spruce cutter, emery grinders, Hanna pneumatic screen shaker, pneumatic hammers, core oven, air compressor, air drills, boiler tube expanders. Thorneycroft tube expanders, hand test pumps, gear hoists, pneumatic hoists, Simplex glue heaters, back for Watson and Stillman hydraulic forcing machine, Dunlap piston air drills, stencil cutting machine, rawhide belting, Kerr's metallic belt lacing, leather fillets, ingot copper, rod and sheet brass, pig iron, iron castings, bar steel, nickel steel rollers, plain and galvanized sheet steel, steel castings, propeller shaft, Jessop's tool steel, Stub's steel, pig tin, antimony, sheet zinc, steam hose, unlined linen hose. Rainbow packing, Garlock packing, sheet rubber, Clarke's flexible metallic packing, Tuck's packing, brass tubes, steel tubes, valves, steel boxes, Long's salinometer pots, Geipel steam traps, steam engines for gypsies, Rockwell rotary melting furnaces, Morison suspension furnaces, Ward boilers and spare parts, duplex steam pumps, Blake duplex steam pumps, leather for Allen ice machine, and metal valve seats for Snow pumps. H. T. B. Harris, Paym. Gen., U. S. N.

### MINING

SMELTER.—Salt Lake City, Utah.—A new smelter is to be installed at the Mamoth Group. Bert Holden of this city is said to be interested.

STAMP MILL.—Deadwood, Cal.—The Lappin mine, near Deadwood, Cal., J. Beatham, Mgr., may be equipped with a stamp mill in the near future.

STAMP MILL.—Redding, Cal.—Local reports state that 10-stamp mill at the Slipper mines, near Kennet, will be replaced by a modern 40-stamp mill.

STAMP MILL.—Silver Star, Mont.—Company operating Green Campbell mine is said to be planning to put in large stamp mill. E. B. Howell is Mgr.

CONCENTRATOR.—Alta, Utah.—Owners of the Continental Alta mines at Alta intend to equip the property with an up-to-date concentrator. H. M. Crowther is Mgr.

TUNNEL.—Bingham, Utah.—Management of Utah-Apex mine will, it is stated, shortly commence the construction of a 2,000-ft. tunnel from Carr Fork canyon, Bingham, to tap its ore bodies.

REDUCTION PLANT.—Bohemia, Ore.—It is stated that the Le Roy Co. will erect a reduction plant on its property as soon as it can be decided what kind of a plant is required. A small saw mill will also be installed shortly to cut lumber for the new plant.

CYANIDE PLANT.—Weiser, Idaho.—It is reported here that D. C. Nevin, Pres. Iron Springs Mining Co., has placed order with the Allis-Chalmers Machine Co. for cyanide milling plant to be 100 tons capacity at present and to be increased to 200 tons as early as possible.

REDUCTION PLANT.—Boise, Idaho.—The Black Horney Mining Co. has been bonded by A. R. Schaffer, Boise City, and H. J. Myers, Chicago, representatives of the Germania Mining & Development Co. It is the intention of the company to put in reduction plant next spring.

SMELTER.—Republic, Wash.—It is reported that J. L. Harper and associates, Spokane, Wash., will construct a smelter at the West Fork of the San Poil river, 14 miles below Republic. The initial equipment will consist of one copper matting blast furnace and one silver lead stack.

MINING PLANT.—Price, Utah.—Local reports state that a company headed by Mark P. Brafett of Scofield and Salt Lake City is doing extensive development work on a vein of ozocerite or mineral wax lately discovered at Colton. A plant for extracting the wax from the vein matter will be erected at a cost of some $30,000.

SMELTING PLANT.—Stockton, Cal.—Local reports state that the Big Trees Mining Co., intends to authorize a bonded indebtedness of $1,000,000 for the construction of a smelting and refining plant system at Murphy, Calaveras County; also a railroad switch railway from Murphy to a railroad connection or to steamship port on the Pacific Coast. Geo. J. Thompson is Secy.

CAR AND TRACK.—Castleton, Utah.—We are informed that Finley Gold and Copper Mining & Milling Co., C. A. Finley, Gen. Mgr., Castleton, needs a mining car and will also purchase about 400 ft. of rails. The tunnel at the company's mine is now in 247 ft., and it is believed that it is within a few feet of the lead. If a favorable body of ore in found the company may erect a smelter.

## U. S. POSSESSIONS AND CUBA.

DOCK YARD, ETC.—Philippines.—U. S. Government is to have plans prepared for dock yard and coaling station at Olongapo, P. I.

WATER-WORKS.—Cuba.—A water supply for fire and domestic purposes is to be installed for the city of Camaguey. Rhode Fisher, Jr., 1st Assistant Engineer, Province of Puerto Principe, Cuba, is in charge of surveys and construction.

DRY-DOCKS, ETC.—Cuba.—U. S. naval authorities are making plans for the equipment of a naval station at Guantanamo, for which an estimate of considerable amount will be submitted to Congress next year. This will provide for a dry-dock, a moderate-sized repair plant and supply station.

BRIDGES.—Hawaii.—Following bids were received by Public Works Department, Honolulu, for Kaupoo and Oahn steel bridges: L. M. Whitehouse, $9,988, $9,532, and $475 for wood joists; John Picanso, $8,840; Lord & Belser, $7,666, $7,833, $7,891; Cotton Bros. & Co., $9,368, $8,943, steel stringers $380 more.

BUILDING.—Hawaii.—Bids were received by Public Works Department, Honolulu, for buildings for insane asylum as follows: American-Hawaiian Engineering & Construction Co., Sec. 5, $3,068; Sec. 6, $1,576; Sec. 7, $47,816; Sec. 8, $55,000. Concrete Construction Co., Sec. 6, $2,545; Sec. 7, $59,980. John Neill, Sec. 6, $2,300.

## MEXICO.

### RAILWAYS.

COLIMA CITY, COLIMA.—Cerro Grande Lumber Co., previously mentioned in these columns, will raise $300,000, part of which will be used for construction of a railroad, erection of saw mills, and securing machinery. W. T. Thornton, Guadalajara, Mex.; Joseph D. Lewis, Chicago, Ill., and Oran Perry, Indianapolis, Ind., are interested.

GUAYMAS, SONORA.—Guaymas & San Marcial R. R. Co. has been granted one year extension for beginning construction of line from Guaymas to San Marcial, about 135 kilometers. The concession granted to the company, which is represented by Joaquin D. Casasus, City of Mexico, Nov. 4, 1899, expired Aug. 24. The company must complete 33 kilometers of the road within one year from that date. The remainder of the road must be built at the rate of 33 kilometers a year, and the entire line must be completed within four years.

MONTEREY, NUEVO LEON.—It is reported that a railway from the city of Monterey to Cerralvo is to be built by the Mexican Central Ry.

SAN JUAN BAUTISTA, TABASCO.—Surveys are stated to be under way for construction of railway from this place to Teapa, touching at Pueblo, Nuevo, Jolapa, Ermita, Tacolpa and other places. The line will be standard gage, about 116 kilometers long, and will probably be backed by New York capitalists.

### STREET AND ELECTRIC RAILWAYS.

GUADALAJARA.—The American syndicate, represented by W. T. Thornton, Guadalajara, which has applied for the concession to construct an electric railway system in Guadalajara, has offered to pay into the state treasury $400,000 for the franchise. In the event of this [illegible] being accepted by the government, it is said that [illegible] money will be used in building arch over San Juan Riv[illegible]

GUADALAJARA.—It is stated that the Cat[illegible] Bank of the City of Mexico will finance the build[illegible] the proposed electric railway between Guadalajara [illegible] Mor-elia. J. N. Zermeno, an attorney of the City [illegible] ico, has been active in arranging the preliminary [illegible] for the enterprise. Concessions for the proposed [illegible] have been obtained from the state governments of J[illegible] and Michoacan. The new company takes the place [illegible] eri-can syndicate which originated the project but a[illegible] it several months ago. The surveys for the [illegible] have been made by Engineer Albert E. Springhall. T[illegible] of the Mexican syndicate, which is organized u[illegible] the name of the Guadalajara & Morelia Railroad [illegible] con-template the construction of the road from a poi[illegible] the south side of Guadalajara to the town of Chapala, [illegible] dis-tance of 50 kilometers. From Chapala it is pro[illegible] to run a line of steamers across the lake to the tow[illegible] La Palma to connect with the Michoacan division [illegible] road, and thus avoid the difficulties of constructio[illegible] appear in the mountain ranges on the south and [illegible] Lake Chapala. From La Palma to Morelia the [illegible] will be 350 kilometers in length, and will run th[illegible] productive and thickly settled region. Electric pow[illegible] the proposed road will be obtained from the Co[illegible] Industrial de Guadalajara and the Guanajuato E[illegible] Light & Power Co.

### LIGHT AND POWER PLANTS.

CAMPECHE.—The work of constructing the new [illegible] tric light and power plant for this city will soon be com-menced by the Compania Campechana de Electric id[illegible] y Fuerza, which was recently organized with a capital stock of $150,000. The company has a contract to supply the city with 60 arc and 300 incandescent lamps. It is also expected that about 1,500 incandescent lamps will be provided for private parties. Harry H. Hinkle is Mgr.

CITY OF MEXICO.—Government has granted Guillermo Vega concession to use 10,000 liters of water per second from Baluarte River or from Rosario River, District of Rosario, Sinaloa, for hydraulic purposes.

CULIACAN, SINALOA.—City Countil has received three bids for the contract to furnish electric light service. They are from Carlos Escobar, Nicholas Tortolero Vallejo and Oscar J. Braniff, of the City of Mexico, and the bids are now under consideration.

MAZATLAN.—Louis Kaiser, U. S. Consul at Mazatlan, reports that a newly organized company will take charge of the electric-light plant at Mazatlan Sept. 1. The company will need a large amount of supplies, and quotations from manufacturers of electric supplies should be addressed at once to Senor Jose H. Ricco, Mazatlan, Sinaloa, Mexico.

MAZATLAN, SINALOA.—A company has been organized in Mazatlan to establish a modern electric light plant and have already secured a concession from the city and state governments. It is said the new company will buy the old plant, thoroughly repaired and enlarged by the introduction of new dynamos, boilers, etc. Jose H. Rico and Andres Avendano may be interested.

SALAMANCA, GUANAJUATO.—A number of citizens in Salamanca have organized a corporation to install an electric light plant.

TOLOTLAN, JALISCO.—The concessions owned by Leon Pegot and Manuel and Miguel Quenedo for utilizing the waters of the Santiago River near here for the purpose of generating electric power have been consolidated, and it is stated that active steps are in progress looking to the establishment of the proposed electric plant. It is proposed to transmit the electrical energy to the cities of Guadalajara and Aguascalientes.

### BRIDGES.

CHARINDA, MICHOACAN.—The state government of Michoacan has appropriated the necessary sum for the construction of a steel bridge over the river at the town of Charinda. The governor of the state may be addressed at Morelia.

CITY OF MEXICO.—Mexican Central Ry. Co., L. Kingman, Ch. Engr., City of Mexico, is reported to have had a bridge over the San Pedro River, near Ortiz, washed out recently, causing loss of $150,000.

### WATER-WORKS.

LEON, GUANAJUATO.—State Government has granted this city concession and a subsidy of $20,000 per year to construct dam across Los Castillos River to provide drinking water.

NUEVO LEON.—Isidoro Canales has secured a concession for the use of 1,624 liters of water per second from the Costilla de Vaca Brook, in the state of Nuevo Leon.

CITY OF MEXICO.—Governor Landa y Escandon, of the Federal District, proposes to construct water-works and sewerage in all the most important towns of the district, including Tacubaya, San Pedro, Mixcoac, San Angel, Coyoacan, Tlalpam, Xochimilco, and Guadalupe. Tlalpam being the most important town will be the first to receive the improvements, and Mixcoac, where the sanitary conditions are very bad, will be second.

### MISCELLANEOUS.

HARBOR IMPROVEMENT.—Guaymas, Sonora.—The committee of engineers appointed to study the question of the port improvements to be executed at Guaymas estimate the cost of the works will reach the sum of $5,000,000. Natividad Gonzalez is Chn. of the committee.

MINING WORK.—Monterey.—B. P. Buchard and A. L. Fernandez, mining engineers of this city, have closed a deal for property east of La Ventura. They will, it is stated, soon begin active operations and install machinery.

SMELTER, ETC.—Matehuala.—The National Metallurgical Co., of Matehuala, will build a smelter at Matehuala. The company has secured water from Jordan River in Maroma District for the smelter and also for the city, which has granted the company a 20-year concession. Water will be conveyed in pipes. Construction of smelter commenced at once. A 500-HP. gas plant is also to be installed to operate gas engines. Two smelting furnaces, a lead and a copper will be installed. The city will be elecrtically lighted from company's plant, while eventually a large concentrating plant will be added.

MINING MACHINERY.—Sonora.—The Gold Coin Prospecting & Development Co., with headquarters in Colorado Springs, Colo., which has several mines in the state of Conora, will probably purchase considerable mining machinery in the near future. Colonel Lewis Ginger, Colorado Springs, Colo., is Pres.

CYANIDE PLANT.—Sombrerete, Durango.—A cyanide plant is to be erected at the La Noria mine, near Sombrerete. W. T. Mustin, of Pittsburg, Pa., is interested. B. Clark Wheeler is Supt. at the mine.

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## FOREIGN CONTRACTS—EXPORT NEWS.

ELECTRIC STATION.—Brazil.—An electric power station is to be built in Santos, Brazil.

RAILROAD.—Spain.—An elevated road is to be built at eria, Spain, to connect the railroad station with the harbor of that city.

RAILWAY.—Honduras.—A steam railway line is projected which is to connect the Lagoon Guamoveto with the guan River in Honduras.

STEAM RAILROAD.—West Indies.—Harris Engineering Co., Darby, Pa., is reported to have received contract for building 100-mile steam railroad in Hayti, West Indies.

SEWERS, TRAMWAYS.—England.—Town Council of Leeds is considering application for sanction to borrow $500,000 for sewerage and drainage and $300,000 for tramway purposes.

ELECTRIC PLANT.—New Zealand.—A report has been made to Council of Auckland on a scheme for installing electric light and power system for that city. Cost is set at about $370,000.

RAILROADS.—Servia.—The Servian Government will spend $2,400,000 for building railroads from Belgrade to Valzedo and between Paratschin and Zaitschar, and invites bids for executing the work.

LOCOMOTIVES.—England.—Southern Mahretta Ry. Co., Ltd., will receive tenders until Oct. 11 for 20 locomotive engines and tenders. Edw. Z. Thornton, Secy., 46 Queen Anne's Gate, Westminster, S. W., London.

PIER.—Indo-China.—The official of the Government of Indo-China will open bids Nov. 1 for building slip 800 ft. long at Haifong, which will be capable of receiving ships of the largest tonnage. The cost is estimated at from $120,000 to $140,000.

SEWERS.—England.—Highway and Sewerage Committee of the Corporation of Sheffield, propose, it is stated, to expend $1,350,000 for extension and improvement of the sewage disposal works at Blackburn meadows.

AGRICULTURAL MACHINES.—Bulgaria.—The directors of the Agricultural Bank of Bulgaria will soon decide upon the quantity of agricultural machines and implements which it will be necessary to purchase for use next year.

ELECTRIC LIGHTING.—Spain.—Notice has been given that an adjudication of tenders for the installation and working of a system of public lighting by electricity of the town of Espinar, in the province of Segovia, will take place on Oct. 12. Particulars and conditions may be seen at the offices of the Alcaldia Constitucional of Espinar.

ELECTRIC TRAMWAY.—China.—The Municipality of Shanghai has asked bids until March 31, 1905, for the construction and working of 24 miles of electric tramways, on the trolley system, double or single. Fearon, Daniel & Co., 96 Wall St., New York, are stated to be agents for the Municipality, and from them conditions of contract, together with plans, etc., may be obtained.

WATER-WORKS AND SEWERAGE SYSTEM APPLIANCES.—Craiova, Roumania.—N. P. Romanescu, Mayor of Craiova, wants catalogues, giving full descriptions, discounts, etc., from manufacturers of fittings, etc., for water-works and sewers, such as lead, cast-iron and terra-cotta pipe, ferrules, cocks and taps, hydrants, automatic flush-tanks, stoves, lavatories, baths, etc. This place is building a new sewerage system and water-works, and intends to refit and make more sanitary the public buildings, schools, hospitals, etc. Address the Water-Works office, 7 Strada Fratii, of Craiova.

ENGINEERING AND CONTRACTING SUPPLIES.—Sydney, N. S. W., Australia.—We are informed that there is a good market for American made goods in the following lines: Engineers' tools (hand and power), woodworking machinery, boiler shop machinery, coal cutting machinery, screening machinery (hand and power), traction engines, survey and mathematical instruments, steam engine indicators and counters, pressure gages, water gage mountings, whistles, etc., engine packings, steel plates and locomotive fire boxes, railway rails and fastenings, injectors, ejectors, assay appliances and processes generally, etc. Richardson & Blair, Consult. Engrs., 32 Vickery's Chambers, 76 Pitt St., Sydney, wish to act as agents for manufacturers of such material. This firm is well acquainted with American methods, as the members have spent several years in the U. S.

RAILWAY WORK.—Peru, So. Am.—C. R. Enock, C. E., Apartado 935, Lima, writes us that a great deal of railway construction is to be undertaken in Peru and Bolivia. The respective governments of both these countries have adopted strong railway policies and large sums of money have been appropriated to pay interest upon capital invested in construction. In Peru the most important line projected is that which will unite the western and eastern slopes of the Andes, opening up the great mining regions and the vast tropical "Montana." After two years' engineering exploration work in the interior of Peru our correspondent is much impressed with its resources. This republic must undoubtedly take a foremost rank among the counties of South America in the future, and the Panama Canal when completed, will probably be of the greatest benefit to Peru, above all other of these republics.

RAILROADS.—Brazil.—State of Santa Catharina, Brazil, has granted concession to Henrique Schueler, Richmond Hill, N. Y., for construction and operation of two railways, one to be called "North-South" and the other "West. The North-South R. R. of Santa Catharina will have its initial station on the Continent in the District of Estreito, in the Municipium of Sao Jose, opposite to the Capitol and extending into the zone that lies between Serra Geral and the ocean, directing it toward the north as far as Joinville and toward the south as far as the boundary line between the State of Santa Catharina and the State of Rio Grande de Lul. The Western R. R. of Santa Catharina will begin at the "North-South" Railroad and pursue a general course from east to west; it will cross the Serra region, pass by the city of Lages and end at the boundaries of this State betwen the parallels 25 degrees 40 minutes and 27 degrees.

RAILWAYS.—France-Spain.—An agreement has been reached between the French and Spanish Governments which will probably result in the construction of three lines of railway over the Pyrennees. All three routes affect the important center of Toulouse. The Confranc route will be about 55 kilometers long and will require the construction of a tunnel 4.82 niles long, the estimated cost of which is $2,940,000. Of this sum each government is to pay half. The Salau route will traverse very rough country, and will involve costly work on the French side An international tunnel, 5.38 miles long, will have to be constructed at an estimated cost of $3,380,000. The line will be about 202 kilometers long, and the cost is estimated at about $106,900 per mile on the Spanish side and $257,500 per mile on the French side. The Puigcerda route will be 90 kilometers long; it will require construction of no international tunnel. There will be, however, tunnels under Puigmorens in France and El Tossas in Spain.

## READERS' WANTS

This Department contains special requests, and detailed items, from persons in the market for supplies, and from others asking for the names and addresses of firms manufacturing certain tools, machinery and supplies required for work in which they are interested. ENGINEERING NEWS will be glad to furnish at once, free of cost, names and addresses of firms making the machinery or material desired, after which the item will appear in this column, **UNLESS OTHERWISE REQUESTED**, which request will be honored absolutely. The information **in all cases will be sent to our advertisers** handling the material wanted, or to other firms should it be out of the line of our advertisers. Every day we are receiving such requests with the understanding that it must not appear in the paper.

ICE-CONVEYING MACHINERY, 125-HP. ENGINE, ETC.—Chicago, Ill.—Wm. Ohelsaher, Arch., 171 Washington St., writes us that the above is wanted by the Jefferson Ice Co. for its new plant.

MACHINERY FOR MAKING WOOD ALCOHOL.—Wilkes-Barre, Pa.—John H. Lause, of Wilkes-Barre, writes us that he wants names of manufacturers of machinery for making wood alcohol from waste in lumbering.

GAS HOLDERS.—Mechanicsburg, Pa.—A. Grant Richwine, Secy. and Treas., Mechanicsburg Gas & Water Co., writes us that he wants the names and addresses of manufacturers of gas holders, as the company is placing a new gas plant in town and wants prices on gas holders.

MOTOR.—Chicago, Ill.—C. H. Liebeck, 4748 Calumet Ave., writes us that he wants a 20-HP. direct-connected motor, 110-volt, with 10-ft. tangential speed on the gearing. The motor to be used for sewer construction. Firms are requested to send printed matter, etc., at once.

FLUSHTANK TOPS (43), FLUSHTANK SIPHONS (45), and MANHOLE TOPS (246).—Canton, O.—F. E. Myers, Cy. Engr., Canton, writes us that he will want to purchase between Oct. 1 and 15 the above mentioned supplies, in connection with the proposed sewer work, contracts for which have been let.

RAILS (4,500 tons of 85-lb.), SPIKES (328,000 lbs.), RAIL JOINTS (10,912 lbs.), OAK AND CHESTNUT TIES (8,200), CROW BARS, CLAW BARS, TAMPING BARS, PICKS, RAILBENDERS, TRACK GAGES, TRACK JACKS, TRACK LEVERS, TRACK DRILLS, RAIL SAWS, HAND AND PUSH CARS.—Morgantown, W. Va.—F. K. Bretz, Gen. Mgr., Morgantown & Kingwood R. R. Co., writes us that the above mentioned supplies are wanted for the proposed new line, bids for which are now being received. The company is not yet ready for rolling stock, turntables, water-softening plants, etc. J. K. Monroe is Ch. Engr., Kingwood, W. Va.

RAILS, ANGLE BARS AND SPIKES.—Hermosillo, Son., Mexico.—F. E. Monteverde, C. E., Apartado Postal 78, Hermosillo, writes us that he wishes quotations on new T and girder rails of from 35 to 70 lbs., angle bars, spikes, etc., and also names of firms dealing in second-hand electric railway supplies, equipment, track, etc.

STAMPING WORK.—Cincinnati, O.—J. H. Dressel, c/o General Delivery, Post Office, Cincinnati, writes us that he has some stamping work he wishes undertaken by a first-class firm. The work to be done is for comparatively small pieces and must be done with accuracy. The work will include making the necessary dies for cutting and bending the material to shape. "No such firms advertise in the technical papers."

IRON BRIDGE (1,600 ft.), STRUCTURAL MATERIAL (22,920 tons), RAILS, 75-LB. (16,920 tons), SPIKES (1,056,000), BOLTS (1,900,000 lbs.), FENCING (282 miles), CATTLE GUARDS (282), OAK TIES (2,640 to the mile), CROW BARS, CLAW BARS, TAMPING BARS, PICKS, RAIL BENDERS, TRACK GAGES, TRACK JACKS, TRACK LEVERS, TRACK DRILLS, RAIL SAWS, HAND AND PUSH CARS, TENTS, STEAM AND ELECTRIC LOCOMOTIVES, DYNAMOS, ETC.—Olathe, Kan.—A. L. Hartridge, Ch. Engr., K. Cy., B. & W. Ry., writes us that he wants the above mentioned material for the proposed railway to be 141 miles long. Standard gage steam locomotives (70-ton) will be used.

## CONTRACT PRICES.

[Where (*) precedes items under Contract Prices the work was advertised in Engineering News.]

RESERVOIR AND CANALS.—Roswell, N. Mex.—Bids were received by U. S. Geological Survey, Reclamation Service, W. M. Reid, Engr., Sept. 6, for constructing reservoir, canals, gates, etc., Hondo Project, near Roswell. The work was divided into six sections, and the following bids were received, in addition to bids given below: Stinkard Construction Co., Roswell, N. Mex., bid $141,014 for first four sections; F. C. Youmans, Kansas City, Mo., bid $27,492 for last section, and De Remer & Olson, Denver, Colo., bid a total of $957,092 for all six sections. These bids were not allowed: (1) Taylor-Moore Construction Co., Hillsboro, Tex.; (2) Wood, Bancroft & Doty, Omaha, Neb.; (3) Maney Bros. & Spencer, Oklahoma City, Okla.; (4) Orman & Crook, Pueblo, Colo.; (5) Carroll Construction Co., St. Louis, Mo.; (6) W. W. Atkinson, Colorado Springs, Colo.; (7) Whitescarver Construction Co., Trinidad, Colo.: (8) Cazier Construction Co., Roswell, N. Mex.:

Bids received Sept. 6, by U. S. Geological Survey, Reclamation Service, for Reservoir and Canals, Hondo Project, New Mexico.

| | | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|---|
| Schedule No. 1: | | | | | | | | | |
| Excavation, Class 1 | 74,000 cu. yds. | .12½ | .15 | .13½ | .17 | .23 | .20 | ...... | .16 |
| " 2 | 100 " | .46 | .40 | .45 | .35 | .50 | .60 | ...... | .45 |
| " 3 | 100 " | .65 | .40 | .60 | .37 | .75 | 1.00 | ...... | .35 |
| Overhaul | 1,000 " | .01$\frac{31}{100}$ | .01½ | .02 | .01½ | .02 | .02 | ...... | .01½ |
| Riprap | 1,000 sq. yds. | .42 | .90 | .75 | 1.00 | 1.00 | 1.25 | ...... | 1.25 |
| Puddling | 100 cu. yds. | .92 | .40 | 1.00 | .80 | 2.00 | 2.00 | ...... | .75 |
| Totals | | $9,886 | $12,135 | $10,965 | $13,747 | $18,365 | $16,430 | ...... | $13,260 |
| Schedule No. 2: | | | | | | | | | |
| Excavation, Class 1 | 1,000 cu. yds. | .12½ | .15 | .15 | .16 | .30 | .21 | .16 | ...... |
| " 2 | 100 " | .46 | .40 | .45 | .35 | .50 | .60 | .40 | ...... |
| " 3 | 100 " | .65 | .40 | .60 | .37 | .75 | 1.00 | .80 | ...... |
| " 4 | 30,000 " | .83 | .90 | .85 | .85 | 1.40 | 1.30 | .95 | ...... |
| Overhaul | 200 " | .01$\frac{31}{100}$ | .01½ | .02 | .01½ | .02 | .02 | .02 | ...... |
| Riprap | 100 sq. yds. | .42 | 1.00 | .75 | 1.00 | 1.00 | 1.25 | .95 | ...... |
| Puddling | 100 cu. yds. | .92 | .40 | 1.00 | .80 | 2.00 | 2.00 | .70 | ...... |
| Totals | | $25,273 | $27,373 | $25,934 | $25,915 | $42,729 | $39,699 | $28,949 | ...... |
| Schedule No. 3: | | | | | | | | | |
| Excavation, Class 1 | 288,000 cu. yds. | .12½ | .15 | .14½ | .19 | .21 | .21 | ...... | .21½ |
| " 2 | 100 " | .46 | .40 | .45 | .35 | .50 | .60 | ...... | .45 |
| " 3 | 100 " | .65 | .40 | .60 | .37 | .75 | 1.00 | ...... | .35 |
| Overhaul | 1,000 " | .01$\frac{31}{100}$ | .01½ | .02 | .01½ | .02 | .02 | ...... | .01½ |
| Riprap | 10,700 sq. yds. | .42 | .90 | 1.00 | 1.00 | 1.00 | 1.25 | ...... | 1.25 |
| Puddling | 1,000 cu. yds. | .92 | .40 | 1.00 | .80 | 2.00 | 2.00 | ...... | .75 |
| Totals | | $41,538 | $53,325 | $53,585 | $66,307 | $73,325 | $76,035 | ...... | $76,140 |
| Schedule No. 4: | | | | | | | | | |
| Excavation, Class 1 | 80,000 cu. yds. | .12½ | .15 | .14½ | .16 | .21 | .21 | .16½ | .18 |
| Overhaul | 1,000 " | .01$\frac{31}{100}$ | .01½ | .02 | .01½ | .02 | .02 | .02 | .01½ |
| Riprap | 5,600 sq. yds. | .42 | 1.25 | 1.00 | 1.00 | 1.00 | 1.25 | .95 | 1.25 |
| Puddling | 100 cu. yds. | .92 | .40 | 1.00 | .80 | 2.00 | 2.00 | .70 | .75 |
| Totals | | $12,457 | $19,055 | $17,320 | $18,495 | $22,620 | $24,020 | $18,610 | $21,490 |
| Schedule No. 5: | | | | | | | | | |
| Excavation, Class 1 | 162,000 cu. yds. | .04 | .15 | .16 | .18 | .21 | .21 | ...... | ...... |
| Overhaul | 150,000 " | .01$\frac{31}{100}$ | .01½ | .02 | .01½ | .02 | .02 | ...... | ...... |
| Riprap | 9,200 sq. yds. | .42 | .80 | .90 | 1.00 | 1.00 | 1.25 | ...... | ...... |
| Puddling | 100 cu. yds. | .92 | .40 | 1.00 | .80 | 2.00 | 2.00 | ...... | ...... |
| Totals | | $12,401 | $33,950 | $37,300 | $40,690 | $46,420 | $48,720 | ...... | ...... |
| Schedule No. 6: | | | | | | | | | |
| Excavation, Class 1 | 100 cu. yds. | .15 | .25 | .16 | .45 | .50 | .50 | .40 | ...... |
| " 2 | 100 " | .46 | .75 | .45 | .75 | .60 | 1.00 | .70 | ...... |
| " 3 | 100 " | .65 | .75 | .60 | 1.00 | .75 | 2.00 | .80 | ...... |
| " 4 | 100 " | 1.50 | 1.50 | .85 | 1.75 | 2.50 | 3.00 | 1.20 | ...... |
| Overhaul | 100 " | .01$\frac{31}{100}$ | .01½ | .02 | .01½ | .02 | .05 | .02 | ...... |
| Riprap | 408 sq. yds. | .42 | 1.00 | 1.00 | 1.00 | 1.00 | 1.50 | 1.25 | ...... |
| Puddling | 100 cu. yds. | .92 | .40 | 1.00 | .80 | 2.00 | 2.00 | .70 | ...... |
| Concrete | 1,600 " | 6.90 | 8.50 | 9.00 | 6.00 | 9.00 | 10.00 | 8.50 | ...... |
| Masonry | 100 " | 8.90 | 5.00 | 10.00 | 12.00 | 8.00 | 12.00 | 9.50 | ...... |
| Timber construction | 12,000 ft. | 45.00 | 50.00 | 45.00 | 45.00 | 60.00 | 60.00 | 40.00 | ...... |
| Piles | 75 | 13.00 | 9.00 | 15.00 | 18.00 | 12.00 | 15.00 | 15.00 | ...... |
| Struc'l steel gates, etc. | 100,000 lbs. | .07$\frac{49}{100}$ | .09 | .10 | .14 | ...... | .08 | .07 | ...... |
| Cast iron pipe | 391 ft. | 11.60 | 10.00 | 10.00 | 18.00 | 16.00 | 14.00 | 19.00 | ...... |
| Totals | | $25,921 | $29,059 | $31,691 | $34,612 | $33,121 | $33,986 | $31,476 | ...... |
| Total entire bid | | 127,476 | 174,897 | 176,795 | 199,766 | 236,580 | 238,890 | 79,035 | 110,890 |

SEWERS, PAVING.—Canton, O.—Following are two lowest bids received Aug. 29 for constructing East Lake St. sewer, requiring (1) 100 ft. 4-in. pipe, (2) 100 ft 6-in. pipe, (3) 1,825 ft. 10-in. sewer pipe, (4) one flush tank, (5) six manholes, (6) 10 cu. yds. concrete, (7) 1,000 ft. B. M. timber, and (8) 1,000 ft. B. M. sheeting: F. K. Turnbull & Sons, Canton, O., (1) $0.45, (2) $0.48, (3) $0.73, (4) $18, (5) $18, (6) $2, (7) $5, (8) $5, total, $1,581; McCrady Bros., (1) $0.30, (2) $0.35, (3) $0.70, (4) $50, (5) $35, (6) $8, (7) $35, (8) $30, total, $1,747. The above parties were also the lowest bidders for constructing East Tuscaraw: St., sewer, requiring (1) 75 ft. 8-in. iron pipe, (2) 2,850 ft. 8-in. sewer pipe, (3) one flush tank, (4) ten manholes, (5) 10 cu. yds. concrete, (6) 1,000 ft. B. M. timber, (7) 1,000 ft. B. M. sheeting: F. K. Trumbull & Sons (1) $0.45, (2) $0.61, (3) $18, (4) $18, (5) $2, (6) $1, (7) $1, total, $1,992; McCrady Bros. (1) $0.65, (2) $0.60, (3) $30, (4) $35, (5) $8, (6), $35, (7) $30, total, $2,304. Harry Cool, Canton, O., was low bidder for improving Maple Ave. by setting curb and laying flag, his bid being as follows: Branch city circular curb, 55 ft., 65 cts., or Berea circular curb, 55 ft., 65 cts., Branch City straight curb, 4,085 ft., 33 cts, or Berea straight curb, 4,085 ft., 34 cts; Branch City abutment curb, 65 ft., 60 cts, or Berea abutment curb, 65 ft., 60 cts.; Berea flag, 16,855 sq. ft., 13 cts., or Independence flag, 16,855 ft. 12½ cts.; crosswalks, block, 955 sq. yds., 65 cts. F. E. Myers is Cy. Civ. Engr.

*IRRIGATION CANAL.—Montrose, Colo.—Bids were received Sept. 15 by U. S. Reclamation Service for construction of the south canal of Uncompahgre Valley Project. I. W. McConnell, Engr., writes that the work involved is mainly excavation in nearly level ground, the canal being 30 ft. wide on the bottom with two to one side slopes. The material excavated from the channel is to be used to build embankments along both sides, the total depth of channel from top of embankment to bottom of cut being, approximately, 12 ft. The bids were taken on nine sections, and the proposals received on three or more of these are given below; in addition, Carson & Wells, Denver, Colo., bid on sec. 5 and 6, their proposals totaling $11,745 and $9,720, respectively; Dillon & Jones, Montrose, Colo., also bid on sec. 2, their bid totaling $14,585; (1) Kellogg & Worley, Gunnison, Colo.; (2) Knowlton & Bollen Construction Co., Fort Collins, Colo.; (3) Orman & Crook, Pueblo, Colo.; (4) Taylor, Moore Construction Co., Hillsboro, Tex.; (5) Bell & Levy, Pueblo, Colo.; (6) Galbraith & Co., South Fork, Colo.; (7) W. C. Whitecarver, Trinidad, Colo.; (8) Lowther Sproule, Montrose, Colo.; (9) Hoover & Lake, Durango, Colo.; (10) Smith Bros., Montrose, Colo.:

Bids received at Montrose, Col., Sept. 15, 1904, for Construction of South Canal of Uncompahgre Valley Project.

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|---|---|---|---|---|---|---|---|---|---|---|
| Section 1, Excavation: | | | | | | | | | | |
| Class 1, 41,000 cu. yds.. | ...... | .12 | .14 | .13⅛ | .15 | ...... | ...... | ...... | ...... | ...... |
| Class 2, 8,000 " | ...... | .28 | .25 | .27 | .35 | ...... | ...... | ...... | ...... | ...... |
| Class 3, 2,000 " | ...... | .34 | .35 | .32 | .37 | ...... | ...... | ...... | ...... | ...... |
| Class 4 | ...... | .95 | ...... | ...... | .75 | ...... | ...... | ...... | ...... | ...... |
| Overhaul, 4,500 cu. yds.. | ...... | .01⅛ | .01⅛ | .01¼ | .01 | ...... | ...... | ...... | ...... | ...... |
| Total | ...... | $7,907 | $8,507 | $8,414 | $9,735 | ...... | ...... | ...... | ...... | ...... |
| Section 2, Excavation: | | | | | | | | | | |
| Class 1, 22,000 cu. yds.. | .13 | .12 | .14 | .15⅛ | .15 | ...... | ...... | ...... | ...... | ...... |
| Class 2, 11,073 " | .20 | .28 | .25 | .27 | .35 | ...... | ...... | ...... | ...... | ...... |
| Class 3, 2,000 " | .65 | .34 | .35 | .32 | .37 | ...... | ...... | ...... | ...... | ...... |
| Class 4 | 1.25 | .95 | ...... | ...... | .75 | ...... | ...... | ...... | ...... | ...... |
| Overhaul, 2,000 cu. yds. | .06 | .01⅛ | .01⅛ | .01¼ | .01 | ...... | ...... | ...... | ...... | ...... |
| Total | $6,495 | $6,450 | $6,578 | $7,075 | $7,936 | ...... | ...... | ...... | ...... | ...... |
| Section 3, Excavation: | | | | | | | | | | |
| Class 1, 26,000 cu. yds.. | ...... | .13 | .14 | .15 | .15 | .19 | ...... | ...... | .18 | ...... |
| Class 2, 12,000 " | ...... | .28 | .25 | .27 | .35 | .60 | ...... | ...... | .38 | ...... |
| Class 3, 6 000 " | ...... | .34 | .35 | .32 | .37 | .40 | ...... | ...... | .40 | ...... |
| Class 4 | ...... | .95 | ...... | ...... | .75 | ...... | ...... | ...... | .85 | ...... |
| Overhaul, 18,000 cu. yds. | ...... | .01⅛ | .01⅛ | .01¼ | .01 | .02 | ...... | ...... | .01⅛ | ...... |
| Total | ...... | $9,050 | $9,010 | $9,375 | $10,500 | $14,900 | ...... | ...... | $11,910 | ...... |
| Section 4, Excavation: | | | | | | | | | | |
| Class 1, 27,000 cu. yds.. | ...... | .13 | .14 | .16 | .15 | .19 | ...... | ...... | .18 | ...... |
| Class 2, 12,000 " | ...... | .28 | .25 | .27 | .35 | .60 | ...... | ...... | .38 | ...... |
| Class 3, 7,000 " | ...... | .34 | .35 | .32 | .37 | .40 | ...... | ...... | .40 | ...... |
| Class 4 | ...... | .95 | ...... | ...... | .75 | ...... | ...... | ...... | .85 | ...... |
| Overhaul, 27,000 cu. yds. | ...... | .01⅛ | .01⅛ | .02 | .01 | .02 | ...... | ...... | .01⅛ | ...... |
| Total | ...... | $9,655 | $9,635 | $10,340 | $11,110 | $15,670 | ...... | ...... | $12,625 | ...... |
| Section 5, Excavation: | | | | | | | | | | |
| Class 1, 24,000 cu. yds.. | .14 | .13 | .14 | .17 | ...... | .19 | ...... | ...... | .17 | ...... |
| Class 2, 15,000 " | .21 | .28 | .25 | .28 | ...... | .60 | .... | ...... | .39 | ...... |
| Class 3, 7,500 " | .65 | .34 | .35 | .33 | ...... | .40 | ...... | ...... | .40 | ...... |
| Class 4 | 1.25 | .95 | ...... | ...... | ...... | ...... | ...... | ...... | .85 | ...... |
| Overhaul, 27,000 cu. yds. | .02 | .01⅛ | .01⅛ | .02 | ...... | .02 | ...... | ...... | .01½ | ...... |
| Total | $12,735 | $10,275 | $10,140 | $11,295 | ...... | $17,100 | ...... | ...... | $13,335 | ...... |
| Section 6, Excavation: | | | | | | | | | | |
| Class 1, 46,000 cu. yds.. | .11 | .13 | .14 | .13 | ...... | .17 | .12⅛ | .15 | ...... | .18 |
| Class 2, 6,000 " | .15 | .28 | .25 | .25 | ...... | .60 | .30 | .50 | ...... | .48 |
| Class 3, 2,000 " | .50 | .34 | .35 | .31 | ...... | .40 | .45 | 1.00 | ...... | .75 |
| Class 4 | 1.25 | .95 | ...... | ...... | ...... | ...... | ...... | 1.25 | ...... | ...... |
| Overhaul, 2,000 cu. yds. | .05 | .01½ | .01⅛ | .01¼ | ...... | .02 | .01⅛ | .02 | ...... | .03 |
| Total | $7,060 | $8,370 | $8,670 | $8,135 | ...... | $12,260 | $8,480 | $11,940 | .... | $12,720 |
| Section 7, Excavation: | | | | | | | | | | |
| Class 1, 45,000 cu. yds.. | ...... | .12 | .14 | .13 | ...... | ...... | .12⅛ | .15 | ...... | .16⅔ |
| Class 2, 5,000 " | ...... | .28 | .25 | .25 | ...... | ...... | .30 | .50 | ...... | .48 |
| Class 3, 2,000 " | ...... | .34 | .35 | .31 | ...... | ...... | .45 | 1.00 | ...... | .75 |
| Class 4 | ...... | .95 | ...... | ...... | ...... | ...... | ...... | 1.25 | ...... | ...... |
| Overhaul, 2,000 cu. yds. | ...... | .01⅛ | .01⅛ | .01¼ | ...... | ...... | .01⅛ | .02 | ...... | .03 |
| Total | ...... | $7,510 | $8,280 | $7,755 | ...... | ...... | $8,055 | $11,290 | ...... | $11,460 |
| Section 8, Excavation: | | | | | | | | | | |
| Class 1, 48,000 cu. yds. | ...... | .12 | .14 | .13 | ...... | ...... | .12⅛ | .15 | ...... | .18 |
| Class 2, 5,000 " | ...... | .28 | .25 | .25 | ...... | ...... | .30 | .50 | ...... | .48 |
| Class 3, 2,000 " | ...... | .34 | .35 | .31 | ...... | ...... | .45 | 1.00 | ...... | .75 |
| Class 4 | ...... | .95 | ...... | ...... | ...... | ...... | ...... | 1.25 | ...... | ...... |
| Overhaul, 2,000 cu. yds. | ...... | .01⅛ | .01⅛ | .01¼ | ...... | ...... | .01⅛ | .02 | ...... | .03 |
| Total | ...... | $7,870 | $8,700 | $8,145 | ...... | ...... | $8,430 | $11,740 | ...... | $12,600 |
| Section 9, Excavation: | | | | | | | | | | |
| Class 1, 45,000 cu. yds. | ...... | .12 | .14 | .14 | ...... | ...... | .15 | ...... | ...... | ...... |
| Class 2, 10,000 " | ...... | .28 | .25 | .26 | ...... | ...... | .35 | ...... | ...... | ...... |
| Class 3, 5 000 " | ...... | .34 | .35 | .32 | ...... | ...... | .45 | ...... | ...... | ...... |
| Class 4 | ...... | .95 | ...... | ...... | ...... | ...... | ..... | ...... | ...... | ...... |
| Overhaul, 2,000 cu. yds. | ...... | .01⅛ | .01⅛ | .01¼ | ...... | ...... | .01⅛ | ...... | ...... | ...... |
| Total | ...... | $9,930 | $10,580 | $10,535 | ...... | ...... | $12,530 | ...... | ...... | ...... |

BRIDGE WORK.—New York, N. Y.—The following bids were received Sept. 26 for constructing bridges and approaches over Port Morris Branch of N. Y. & H. R. R., in connection with depression of said railroad; (1) M. J. Leahy, 990 E. 165th St.; (2) Snare & Triest, 39 Cortlandt St.; (3) P. J. Murray, Brooklyn; (4) T. V. Smith Contracting Co., 147 E. 125th St.; (5) Century Construction Co., 5 E. 42d St.; (6) United Engineering & Contracting Co., 21 Park Row; (7) Jno. J. Hopper, 215 W. 125th St.; (8) Jas. Gallo, Pelham Bridge:

| Items. | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| Earth excavation, 2,400 cu. yds | $0.75 | $0.75 | $1.25 | $0.70 | $1.50 | $1.00 | $0.75 | $2.00 |
| Rock, 1,500 cu. yds | 1.50 | 1.60 | 1.90 | 2.00 | 1.50 | 4.00 | 2.50 | 2.00 |
| Filling 51,000 cu. yds | .... | .36 | .55 | .25 | .15 | .30 | .75 | .60 |
| New curb, 8,500 lin. ft | .95 | 1.22 | 1.00 | .85 | .80 | 1.10 | 1.20 | .75 |
| New flag, 34,000 sq. ft | .27 | .27 | .25 | .25 | .18 | .40 | .40 | .24 |
| New bridge, 1,500 sq. ft | .95 | .96 | 1.00 | .60 | .55 | .75 | 1.00 | .80 |
| Dry rubble, retain'g wall, 3,100 cu. yds | 2.20 | 3.25 | 6.00 | 2.00 | 3.00 | 3.00 | 3.50 | 3.00 |
| Brick masonry in man holes, 50 cu. yds | 20.00 | 11.00 | 10.00 | 11.00 | 20.00 | 15.00 | 18.00 | 16.00 |
| Basins, 5 | 185.00 | 75.00 | 100.00 | 100.00 | 80.00 | 200.00 | 200.00 | 100.00 |
| Vito-stoneware pipe, 12-in., 300 lin. ft. | 3.50 | 2.10 | 2.50 | 2.50 | 1.50 | 2 00 | 1.20 | 3.00 |
| Class A, concrete, 850 cu. yds | 9.50 | 7.60 | 12.00 | 8.50 | 8.00 | 10.00 | 10.00 | 10.00 |
| Class B, concrete, 4,200 cu. yds | 10.00 | 5.80 | 8.00 | 6.00 | 6.00 | 7.00 | 8.00 | 8.00 |
| Class C, concrete, 60 cu. yds | 10.00 | 13.50 | 22.00 | 15.00 | 10.00 | 12.00 | 15.00 | 15.00 |
| Cinder concrete foundation, 50 cu. yds. | 7.00 | 7.30 | 4.00 | 4.00 | 3.00 | 3.00 | 6.00 | 6.00 |
| 100 additional bbls. Portland cement | 2.00 | 1.60 | 1.50 | 1.50 | 1.35 | 3.00 | 2.00 | 1.60 |
| Waterproofing, including mortar covering, 725 sq. yds | .65 | .85 | .75 | .70 | .90 | 1.00 | 1.50 | .90 |
| Lumber, 10,000 ft. B. M | 40.00 | 40.00 | 30.00 | 40.00 | 40.00 | 50.00 | 40.00 | 30.00 |
| Gran. bl'ks, cem't joints, 4,100 sq. yds. | 3.85 | 3.20 | 3.00 | 3.00 | 2.80 | 3.00 | 2.50 | 2.50 |
| Asphalt pave, 10,850 sq. yds | 1.80 | 1.74 | 2.25 | 1.40 | 1.50 | 1.50 | 2.00 | 1.25 |
| Asphalt block, 7,400 sq. yds | 2.25 | 2.70 | 3.50 | 2.00 | 2.25 | 2.00 | 2.25 | 2.50 |
| Asphalt sidewalk, 900 sq. yds | 1.60 | 1.38 | 1.80 | 1.10 | 1.30 | 1.25 | 1.50 | 1.00 |
| Iron and steel, 940,000 lbs | .03$\frac{40}{100}$ | .03$\frac{48}{100}$ | .04$\frac{8}{100}$ | .03½ | .03$\frac{6}{10}$ | .03$\frac{38}{100}$ | .05 | .04 |
| Steel reinforcing bars, 18,600 lbs | .06 | .03⅛ | .03 | .04 | .04 | .03 | .05 | .06 |
| Ornamental railings, 525 lin. ft | 3.50 | 5.00 | 3.00 | 4.00 | 4.00 | 3.35 | 3.00 | 3.50 |
| Gas pipe railings, 150 lin. ft | 1.50 | 1.90 | 1.90 | 2.00 | 2.00 | 1.50 | 2 00 | 1.50 |
| Iron picket fence, 400 lin. ft | 2.50 | 4.50 | 2.10 | 4.00 | 1.50 | 2.50 | 3.00 | 2.50 |
| Total | $173,259 | $179,645 | $225,120 | $154 741 | $155,491 | $178,352 | $227,152 | $195,038 |

## INDUSTRIAL NOTES.

OUR READERS are requested to send short notes regarding new contracts that they are about to award, or have secured, for our news columns. Changes in firms' names and addresses are also wanted. "Write-ups" will not be inserted under any circumstances, as notes must contain news of interest to our readers. If our readers are in the market for any kind of machinery, tools, etc., we shall be glad to send them names of responsible firms making what they want.

THE MISSOURI VALLEY BRIDGE & IRON CO., of Leavenworth, Kan., has been incorporated under the laws of the State of Kansas, to carry on the business of the late A. J. Tullock, by his former associates. The new company has purchased the entire equipment, good will and business of the former concern, and has co with Mr. Tullock's Estate to complete all unfini tracts.

FRANK M. ASHLEY, M. E., New York, calls at to the fact that he is now located at 136A Libe and is prepared to transact business.

THE LANTRY-SHARP CONTRACTING CO., City, Mo., begs to announce the removal of its fice from Strong City, Kan., to the Gumbel B Kansas City, Mo.

THE McCLINTIC-MARSHALL CONST. CO., Pi Pa., has recently received from the B. & O. R. R order for about 2,000 tons of plate girder bridge girder spans vary in length from 75 ft. to 110 ft. Th tion of this ordered to be erected on the Pittsburg Di of the B. & O. R. R. Co. will be manufactured Pittsburg plant, and the portion to be erected o Baltimore Division of the B. & O. R. R. to be ma tured at the Pottstown plant of the company.

THE GOULDS MANUFACTURING CO., Seneca N. Y., has come in possession of a large tract of lan joining its No. 2 works in the second ward. The chase includes about twenty-two acres of the Heath The entire purchase of the company consists of abo acres lying contiguous to the original plot of groun which the No. 2 works were erected, and is to be available for the uses and requirements of the compa proposed enlarged works.

THE NATIONAL BRIDGE WORKS, 1123 Broadway, New York, incorporated under the laws of the State of New Jersey, begs to announce its purchase of the good will and business of the National Bridge Supply Co., that it has assumed full liability for all contract obligations and debts of said company, and that the stockholders and directors of said last-named company are identical with the stockholders and directors of the National Bridge Works. Thomas J. Foster, Pres.; Robert Giles, Vice-Pres. and Mgr.; Elliott C. Smith, 2d Vice-Pres.; John J. Ginnane, Secy. and Treas.

THE WELLS LIGHT MANUFACTURING CO., of 44 Washington St., New York, has placed on the market a new light, known as the Wells Standard Oil Gas Lamp. This lamp is designed to meet the requirements of foundries, railroad machine shops, etc., as well as all classes of indoor work where it is possible to use an unprotected flame. Two hundred candle power being the amount of light which is obtained from the lamp, with the consumption of 1½ gallons of oil in six (6) hours. The lamp is very simple in construction, and therefore, is not liable to get out of repair from ordinary usage. The principle of construction being similar to the "Wells Light." It is of value where a small portable light is required because it can be moved to any position to suit the work in hand, without putting it out, and it is possible for the operator to pick up and change the position without any assistance.

THE INTERNATIONAL RAILWAY CONGRESS, which is to be held at Washington, D. C., May 3 to 14, 1905, promises to be of great benefit for the railway supply interests of America. This body meets but once in five years, and will meet for the first time in the United States. Its membership comprises the managerial heads of the government and independent railways of most of the foreign countries of the world, together with the officials of similar rank of many railways in America.

At the annual meeting of the Railway Supply Men's Association, in connection with the Master Mechanics' and Master Car Builders' Associations, held in Saratoga, in June, 1903, a resolution was adopted asking the officials of the American Section of the International Railway Congress, if it would be agreeable to them, to have an exhibition of American railway appliances made in connection therewith. To this inquiry came the response that such an exhibition would be a desirable auxiliary to the Congress.

Resolutions approving the project and providing for the creation of a Committee of Arrangements were unanimously adopted by the Supply Men in session at Saratoga on June 21, 1904, and the following have been chosen: Mr. Geo. A. Post, Chairman; Mr. Chas. A. Moore, Treasurer, and Mr. J. Alexander Brown, Secretary and Director of Exhibits.

H. P. Bope, Vice-President Carnegie Steel Co.
L. F. Braine, General Manager Continuous Rail Joint Co. of America.
A. E. Brown, Vice-President Brown Hoisting Machinery Co.
J. G. Brill, President J. G. Brill Co.
J. B. Brady, Vice-President Standard Steel Car Co.
O. H. Cutler, President American Brake Shoe & Foundry Co.
C. A. Coffin, President General Electric Co.
F. H. Eaton, President American Car & Foundry Co.
H. Elliott, Jr., Vice-President Elliott Frog & Switch Co.
William Goldie, Sr., William Goldie, Jr., & Co.
F. N. Hoffstot, President Pressed Steel Car Co.
H. S. Hawley, President Railroad Supply Co.
A. B. Jenkins, Jenkins Bros.
Alba B. Johnson, Baldwin Locomotive Works.
B. F. Jones, Jones & Laughlin Steel Co.
A. M. Kittredge, Vice-President Barney & Smith Car Co.
W. V. Kelly, President Simplex Railway Appliance Co.
E. B. Leigh, Vice-President Chicago Railway Equipment Co.
Wm. Lodge, President Lodge & Shipley Machine Tool Co.
Gen. Charles Miller, President Galena-Signal Oil Co.
Charles A. Moore, Manning, Maxwell & Moore.
Gov. Franklin Murphy, President Murphy Varnish Co.
D. C. Noble, President Pittsburg Spring & Steel Co.
Hon. H. Kirke Porter, H. K. Porter Co.
A. J. Pitkin, President American Locomotive Co.
Alfred A. Pope, President National Malleable Castings Co.
H. S. Paul, President Verona Tool Works.
George A. Post, President Standard Coupler Co.
C. W. Sherburne, President Star Brass Co.
C. A. Starbuck, President New York Air Brake Co.
W. W. Salmon, President General Railway Signal Co.
H. A. Sherwin, President Sherwin-Williams Co.
Albert Waycott, President Damascus Brake Beam Co.
H. H. Westinghouse, Vice-President Westinghouse Air Brake Co.
W. W. Willits, Vice-President Adams & Westlake Co.

To the manufacturer who seeks export trade, the presence in this country of over 500 foreign railway men, with the power of purchase, an opportunity is offered to American manufacturers that never will be equaled. This will be distinctively an exhibition of railway appliances for the exclusive scrutiny of railway men.

To the manufacturer whose appliances are not adaptable to foreign railway use, but designed solely for American practice, the presence in attendance upon the Congress of a large number of American railway executive officials should be sufficient inducement for him to make an exhibit.

All arrangements with exhibitors will be made by Mr. J. Alexander Brown, Mgr. of the Railway Equipment & Publication Co., 24 Park Place, New York.

## TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3½ x 6 ins., 6 x 9 ins., and 9 x 12 ins.)

PRODUCER GAS.—R. D. Wood & Co., Philadelphia, Pa. Paper, 8¼ × 11 ins.; pp. 12; illustrated.

The production of Mond gas is discussed in a general way in this pamphlet. Sketches of Mond producers are shown.

GAS ENGINES.—Wellman-Seaver-Morgan Co., Cleveland, O. Paper, 6 x 9 ins.; pp. 16; illustrated.

Describes the Sargent gas-engine, whose features are: high ratio of expansion, time of ignition varied by governor, and time of admission cut-off varied by governor.

TELPHERAGE.—United Telpherage Co., 20 Broad St., New York. Paper, 6 × 9¼ ins.; 2 pamphlets, pp. 4 and 12; illustrated. (Serial Circulars 49 and 51.)

These illustrate two different applications of the automatic hoisting and conveying system called "telpherage."

SURVEYING INSTRUMENTS.

The A. Lietz Co., of San Francisco, request us to say that their Manual of Modern Surveying Instruments, which was noted in this column in our issue of Aug. 4, is now out of print, but a new edition will be issued within four or six weeks.

MACHINE BANDED WOOD PIPE.—National Wood Pipe Co., Successor to California Redwood Pipe Co., Sixth and Mates Sts., Los Angeles, Cal. Paper; 3 × 6 ins.; pp. 4.

A price list of 3 to 18-in. pipe, under heads of 20 to 300 ft., occupies most of the space in this folder. In addition, the pipe is briefly described and its advantages set forth.

MAGNETIC SEPARATORS.—Wetherill Separating Co., 52 Broadway, New York, N. Y. Paper, oblong; 9 × 6 ins.; pp. 16; illustrated.

These separators are built of two patterns for handling minerals which are strongly and lightly magnetic. A number of the machines are in operation, and two are exhibited at St. Louis for separating magnetite and monazite.

DROP FORGINGS.—Wyman & Gordon, Worcester, Mass. Paper, 4½ × 7 ins.; pp. 12; illustrated.

As a companion series to this company's short biographies of engineers, a series of elementary discussions of electrical matters is begun by this booklet on Electrical Units. The fact that the company makes drop forgings is advertised on the cover only.

ALTERNATING-CURRENT RECTIFIER.—The Electrical Appliance Co., Cincinnati, O., Various sheets; illustrated.

The Churcher rectifier is an electrolytic cell with aluminum or composition electrodes, and makes use of the "passive state" property of the electrodes. But it uses only one cell to rectify both waves of the current. It requires a transformer stepping down to about twice the voltage of the desired direct current.

ACETYLENE GAS.—The Commercial Acetylene Co., 80 Broadway, New York, and the Pyle-National Electric Headlight Co., 1425 Monadnock Block, Chicago. Paper, oblong; 9 × 7 ins.; pp. 24; illustrated.

This pamphlet describes the storage system employed, with particulars of the generating and compressing plant. Its application for lighting cars, headlights, signals, stations, yachts, residences, etc., is also shown, while a tabulated comparison of cost of lighting by city gas, gasoline, electricity and acetylene gas is also given.

BALLAST AND FREIGHT CARS.—Rodger Ballast Car Co., Railway Exchange, St. Louis, Mo. Paper; 3½ × 6¼ ins.; pp. 24; illustrated.

The Rodger cars are of convertible types, used either as dump cars for coal and gravel, etc., or as flat and gondola cars for general service. The material can be dumped in the middle of the track (as in distributing ballast or filling coal pockets), or it may be plowed off through side doors, as in filling trestles or building embankments. The St. Louis Exhibition employs 150 of these cars, of 50 tons capacity, with steel underframes, for hauling the coal supply of the power plant.

MEYER VALVE-GEAR PUMPING ENGINES.—Laidlaw-Dunn-Gordon Co., Cincinnati, O., and 114 Liberty St., New York City. Paper; 6 × 9 ins.; pp. 19; illustrated.

The steam valves used in the Meyer gear pumping engines are of the flat, slide type, provided with a pair of auxiliary valves working on the back of the main valves. The auxiliary valves are moved by an independent eccentric, and by setting them nearer together or further apart the cut-off can be regulated at will. Cross-compound and triplex-compound pumping engines, with fork frames or with rolling-mill frames are described and illustrated in the catalogue. These pumping engines are designed to provide a relatively high duty at moderate expense for small daily capacities. A list of pumping engines installed shows daily capacities ranging from 650,000 to 4,000,000 gallons.

TROPENAS CONVERTER STEEL PROCESS.—Powell & Colne, 11 Broadway, New York City. 6 × 9 ins.; pp. 29.

The Tropenas converter belongs to what has been called the "Baby Bessemer" processes. It employs a Bessemer converter of moderate size and is therefore well adapted to the use of steel founders. While previous processes of this class have had only a short season of popularity, the Tropenas converter has now been in use for a dozen years, and its introduction is still extending. About 40 Tropenas plants with 60 converters have been built in Europe, and in the United States and Canada 18 plants with 24 converters have been erected. The process appears to be particularly successful in the production of steel of very high permeability and uniformity, suitable for use in electrical construction.

STEAM TURBINES.—Sautter, Harle & Co., 26 Avenue de Suffren, Paris, France. Paper; 6¼ × 9½ ins.; pp. 102; illustrated.

This is a reprint of an interesting paper on "The Rateau Steam Turbine and Its Applications," read by Mr. Jean Rey before the French Society of Civil Engineers. It opens with the history of the Rateau turbine, and a comparison of the Rateau, Parsons, De Laval, Curtis, Westinghouse and Riedler steam turbines, all of which are illustrated by half-tone engravings and sectional drawings. A discussion of the theory and action of steam turbines of various types then follows. In the closing section, which treats of the practical application of steam turbines, the Rateau system is shown as applied to the driving of electric generators (direct and alternating current), pumps, ventilating and blowing fans, and also for the propulsion of torpedo boats of the French navy. The book forms an interesting and useful review of the steam turbine as applied to practical work.

THE BOOK OF THE FOUR POWERS.—Allis-Chalmers Co., Chicago, Ill. Paper, 8 × 10½ ins.; pp. 45.

This is not, as some of our mathematically versed readers may erroneously suppose, a treatise on the solution of biquadratic equations. Instead it is a publication devoted to setting forth the claims of the well-known company issuing it to possession of a certain four powers, the claim being expressed in the terms already familiar to most of our readers: "Ours the four powers, steam, gas, water, electricity."

Fortunately for the rest of us, the company, notwithstanding the breadth of this claim, expresses no intention to monopolize the use of these great powers. Instead, it generously offers to share them with whosoever desires, and to facilitate the process it furnishes machinery for their utilization—to those who will pay the price.

So far as the first named power—steam—is concerned, the name of Allis is so well associated with that field that no one will dispute its eminence. The company's entrance into the work of gas engine, water-wheel and electrical machinery construction, however, is comparatively recent. It proposes to exploit in this country the famous Escher, Wyss & Co. turbines and the Nurnberg gas engine for large size installations, while it has secured a strong hold in the electrical field by its acquisition of the Bullock Electric Mfg. Co.

The book before us describes for the first time in connected style the great variety of productions which are put forth by this company; and it is fair to add that it has borne a very prominent part in the development of American mechanical engineering practice and in the distribution of American machinery around the globe.

Perhaps some critics may suggest that the four powers are not really "powers" at all; or that if confined steam, exploding gas or falling water be considered sources of power, that electricity is not (save when used from a primary battery) a source of power but merely a means of transmitting power. Let us dismiss, however, all such vain quibbles. So long as the electric motor drives a shop or a tool or turns a fan, so long will electric power be a concrete reality.

The only criticism that we can make is that for the sake of completeness, the enterprising company issuing this pamphlet might as well include in their claim the one remaining power—the power of wind—and write: "Ours the *five* powers." It were a simple matter to add a line of windmills to its productions, and we are not even sure that this is necessary with so excellent and well managed a publication department. It might even be demonstrated that without the power of wind, judiciously and intelligently applied—in advantageous puffs—the other four powers would be nowhere, or at least the process of their utilization would proceed at a far slower rate.

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## WATER PIPE AND SPECIAL CASTINGS.

Montgomery, Ala., Sept. 24, 1904.

Sealed proposals for water pipe and special castings, endorsed with the title of the work, name of the bidder, and the date of its presentation, will be received by the city treasurer of the City of Montgomery, Alabama, at his office until 12 o'clock noon, Monday, October 3d, 1904, for furnishing and delivering between thirty (30) and forty (40) miles of pipe, varying in size from 4-in. to 14-in. internal diameter, with special castings to correspond; all in accordance with specifications on file in the office of the city engineer. Each bidder must deposit with his bid a certified check upon a responsible bank in the sum of One Thousand Dollars ($1,000.00), payable to the city treasurer as a guarantee of good faith. A bond in a reliable surety company authorized to do business in the state of Alabama, must be given by the successful bidder in the sum of Ten Thousand Dollars ($10,000.00), conditioned for the prompt and faithful performance of all the terms of the contract. The City Council reserves the right to reject any and all bids.

R. S. WILLIAMS,
13-1t City Treasurer.

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OFFICE CONSTRUCTING QUARTERMASTER, Prescott, Arizona, September 28, 1904. —Sealed proposals in triplicate will be received here until 3 p. m., October 28, 1904, and then opened, for construction of water distributing system and reservoir. Information in this office and in offices of Chief Q. Ms., Denver, Colo., and San Francisco, Cal., and Recruiting Officer, Los Angeles, Cal. CHAS. C. WALCUTT, JR., Capt. and Q. M. 13-4t

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HARBOR STEAMER.—Quartermaster General's Office, War Department, Washington, D. C., Sept. 27, 1904.—Sealed proposals in triplicate will be received here until 12 m., Oct. 12, 1904, for constructing and equipping steamer for harbor service of Q. M. Dept. Information furnished on application. U. S. reserves right to accept or reject any or all bids. Envelopes containing proposals to be marked "Proposals for Harbor Steamer," addressed CHAUNCEY B. BAKER, Q. M. 13-2t

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## PIPE SEWERS.

Fulton, N. Y.

Sealed proposals for ten thousand lineal feet of 8 to 20-inch pipe sewers will be received by the City Clerk, Fulton, N. Y., until October 7. Plans and specifications at office Board Public Works, Fulton.

W. S. FARRINGTON
13-1t Engineer.

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## WATER-WORKS.

Bordentown, N. J.

The time of opening bids for the proposed water-works, advertised on another page, has been POSTPONED FROM OCT. 4 TO OCT. 15, 1904. C. C. Vermeule, 203 Broadway, New York, is the Engineer for the work. 13-1t

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## FALL TRAVEL SOUTH.

The tide of travel is now southward bound. The Southern Railway, as usual, has its schedules so arranged as to give those going south, southwest, Mexico and California a most delightful service. Through Pullmans are operated daily from New York, touching all of the prominent cities south and southwest. The Southern Railway operates its own dining-car service on all through trains, which is of the highest standard of excellence. For full information call on or address New York offices, 271 and 1185 Broadway.

Alexander S. Thweatt, Eastern Passenger Agent.

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ISTHMIAN CANAL COMMISSION.—PROPOSALS FOR PORTLAND CEMENT.—Washington, D. C., September 19, 1904.—Sealed proposals for furnishing 2,400 barrels Portland cement of American manufacture, with the privilege of calling, at any time before April 1, 1905, for any additional amount up to 10,000 barrels in 500 barrel lots as may be required, will be received at the office of the Isthmian Canal Commission, Washington, D. C., until 12 o'clock noon of the 20th day of October, 1904, when they will be publicly opened. Proposals should be addressed to the Chairman of the Isthmian Canal Commission, Evening Star Building, Washington, D. C., and should be endorsed "Proposal to furnish Portland Cement." General specifications for this cement may be obtained on application to the Secretary of the Commission, Washington, D. C. The Commission reserves the right to reject any and all bids, and to accept the bid most advantageous to the Commission. J. G. WALKER, Chairman of Commission. 12-4t

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## SIX MILES MACADAM PAVING.

White Plains, N. Y.

Sealed proposals will be received by the Town Board of White Plains, N. Y., at the office of the Supervisor, until 12 M. of October 14, 1904, for Grading, Macadamizing and otherwise improving six miles of the highways of the town, viz.: Ridgeway, Haviland's Lane and the southerly portion of West St.; Rosedale Ave., Purdy Ave., Gedney Ave. Sound View Ave., Hartsdale Ave.

Said bids will be opened at the Town Clerk's office in the presence of the bidders at 12 M. of that day.

No bid will be received or considered unless accompanied by a certified check to the order of the Supervisor to the amount of Five Hundred Dollars ($500).

A bond of a duly incorporated Surety Company in a sum to be fixed by the Board of Town Officers will be required.

Specifications and forms can be obtained by addressing the undersigned, and plans can be seen at the office of the Town Clerk.

The Board reserves the right to reject any and all bids.

Dated Sept. 27, 1904.

By order of the Town Board.

FFARRINGTON M. THOMPSON,
Supervisor.

JAMES J. SHAW, Town Clerk,
133 Railroad Ave., White Plains, N. Y.
13-1t

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FORT SLOCUM, N. Y., Sept. 26, 1904.—Sealed proposals in triplicate for constructing brick double barrack will be received here until 11 a. m., Oct. 15, 1904. Information furnished on application. U. S. reserves right to accept or reject any or all bids or any part thereof. Envelopes should be marked "Proposals for barrack," addressed to W. C. RUSSELL, Q. M. 13-2t

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**"WANT"**
**Advertisements in ENGINEERING NEWS cost 1½ cents a word an insertion for "Situations Wanted" or "Open," and 2 cts. a word for "Miscellaneous Wants." At least read them each week.**

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TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., September 19, 1904.—Sealed proposals will be received at this office until 3 o'clock p. m. on the 25th day of October, 1904, and then opened, for the construction (including plumbing, heating and ventilating, gas piping and electric wiring and conduits) of the U. S. Post Office and Court House at Huntington, West Virginia, in accordance with drawings and specification, copies of which may be had at this office, or at the office of the Postmaster at Huntington, West Virginia, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 12-2t

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OFFICE CONSTRUCTING QUARTERMASTER, Delaware City, Del., Sept. 27, 1904.—Sealed proposals in triplicate will be received here until 11 a. m., Oct. 17, 1904, for sinking artesian well and constructing 30,000-gallon brick or concrete reservoir and furnishing and erecting air compressor and receiver, boiler, Duplex steam pump and distilling plant and all necessary connections at Fort Du Pont, Del. U. S. reserves right to accept or reject any or all bids or any part thereof. Information furnished here. Envelopes containing bids should be endorsed "Proposals for Water System," addressed CAPT. LOUIS F. GARRARD, JR., Q. M. 13-2t

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## Situations Open

(Received on Wednesday, too late for classification.)

WANTED.—A thoroughly experienced engineer and estimator on structural and ornamental steel and iron work; one who is acquainted with the New York City trade preferred. Good salary and permanent position to the right man. Apply in person or by letter, stating qualifications. RAPP IRON WORKS, 29th St. and 11th Ave., City. 13-1t

WANTED.—A first-class highway bridge salesman to work in State of Pennsylvania. State experience and salary desired in first letter. Address "O. A. 13," Engineering News, New York. 13-2t

WANTED.—Several experienced structural iron and steel draftsmen capable of laying out and figuring detail work, also making shop drawings. Apply at once. RAPP IRON WORKS, 29th St. and 11th Ave., New York City. 13-1t

For other Proposal Advertisements see pages 35, 36, 37. of Advertisements and Construction News pages 163, 164.

## IRRIGATION WORK.

California.

Sealed proposals will be received by the Board of Directors of Turlock Irrigation District, at its office in Turlock, County of Stanislaus, State of California, until Tuesday, the 11TH DAY OF OCTOBER, A. D. 1904, at the hour of 2 o'clock P. M., for the construction of permanent improvements on the main canal of said district; at which time and place such proposals will be opened. Said work is particularly described as follows, to wit:

(1) A retaining wall of concrete masonry about 1,500 feet long and 9 feet high, and the excavation of from 15,000 to 20,000 cubic yards of solid rock, cemented gravel and earth.

(2) An inverted siphon across Morgan Gulch, consisting of three lines of steel pipe, each 6 feet in diameter and about 330 feet long, together with the necessary excavation and back filling, concrete masonry, intakes, gates, culverts, air-valves, blow-offs, etc.

(3) An inverted siphon across Peasley Gulch, consisting of three lines of steel pipe each 6 feet in diameter and about 420 feet long, together with the necessary excavation and back filling, concrete masonry, intakes, gates, culverts, air-valves, blow-offs, etc.

(4) A wooden flume, 8 feet by 20 feet and about 325 feet long on high trestles.

(5) Taking down four old flumes and piling the lumber near the present sites.

Plans and specifications can be seen and forms of proposals obtained at said office of the board.

All bids must be accompanied by certified checks for five per cent. of the amount of the proposal, payable to the president of the board, as a guaranty that the bidder will, if contract be awarded to him, execute a satisfactory contract and bond for the faithful performance of the contract.

The contract will be let to the lowest responsible bidder, either in portions or as a whole, or the board may reject any or all bids.

Refer to L. F. Hastings, Turlock, superintendent, or S. Fortier, Berkeley, consulting engineer.

Done by order of the Board and dated September 19, A. D. 1904.

R. M. WILLIAMS,
President of the Board of Directors of Turlock Irrigation District.
J. L. BROWN, Secretary. 13-1t

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## BOILERS AND MECHANICAL STOKERS.

Rochester, N. Y.

Sealed proposals suitably endorsed on envelope for furnishing and installing four 150-HP. boilers complete, also mechanical stokers for same; steam and return mains from New Boiler House to Old Group and Heating in Store House, at the Rochester State Hospital, Rochester, N. Y., may be sent by mail or delivered in person up to 3 o'clock P. M. on Wednesday, the 5th day of October, 1904, to the State Commission in Lunacy at the Capitol, Albany, N. Y., when the bids will be opened and read publicly.

Drawings and specifications may be consulted and blank forms of proposal obtained at the Rochester State Hospital, Rochester, N. Y., or by application to G. L. Heins, State Architect, in the Capitol at Albany, N. Y.

Contracts will be awarded to the lowest responsible and reliable bidders unless the bids exceed the amount of funds available therefore, in which case the right to reject all bids is reserved.

T. E. McGARR,
Secretary, State Commission in Lunacy.
Albany, Sept. 24, 1904. 13-1t

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## BOND SALE.

Sealed bids will be received by W. H. Liddell, Mayor, New Albany, Mississippi, until October the 21st, 12 o'clock m., 1904, for the purchase of Twenty Thousand Dollars 5% New Albany Electric Lights and Water-Works Bonds. A certified check for 2% of the amount of each bid, payable to W. H. Liddell, Mayor, must accompany each bid.

E. M. OWEN,
City Clerk,
13-3t New Albany, Miss.

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PROPOSALS FOR CONSTRUCTION.—Office Constructing Quartermaster, Chattanooga, Tenn., Sept. 24, 1904.—Sealed proposals in triplicate will be received here until 12 m., Oct. 14, 1904, for constructing fences and gates, also two ornamental entrance gates at Chickamauga Park, Ga. Information furnished upon application. U. S. reserves right to accept or reject any or all bids or any part thereof. Envelopes containing proposals to be marked "Bids for fences, gates, etc.," addressed H. W. FRENCH, Capt., Q. M. 13-3t

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## ROCKY FORD DISTRICT SANITARY SEWER DISTRICT NO. ONE.

Rocky Ford, Colo.

Sealed bids for the furnishing of all materials, supplies, labor, etc., and the sustaining of all the expense incurred in constructing in place a District Sanitary Sewer, together with all manholes, inlets and appurtenances in and for Rocky Ford District Sanitary Sewer District No. One in the City of Rocky Ford, in the County of Otero and State of Colorado, and such mains outside the said District as shall be necessary to connect the District with the Arkansas River, as ordered and authorized by Ordinance No 104 of said City, of 1904, and in accordance with the details, plans and specifications adopted and prescribed by the City Council, will be received by the undersigned at the office of the City Clerk of said City in said City of Rocky Ford until 8 o'clock P. M. on Monday, the 24th day of October, A. D. 1904, at which hour the bids will be publicly opened and read aloud. Upon opening the bids the Mayor will canvass the same and if any is accepted will, without unnecessary delay, award the contract, subject to the approval of the City Council. But the right is reserved to reject any or all bids.

The Engineer's approximate estimate of the work to be done is as follows:

38,791 linear feet 8" pipe sewer.
1,637 linear feet 10" pipe sewer.
6.842 linear feet 12" pipe sewer.
124 manholes.
24 flushers.
2,335 6" Y's on 8" sewer.
108 6" Y's on 10" sewer.
17 cubic yards of concrete for outlet wall.
100 cubic yards excavation in shale.
50 cubic yards excavation in rock.
2,000 feet B. M. lumber, left in trenches.

All bids and the contract shall be subject to all the provisions, terms and conditions of said ordinance and of an Act of the General Assembly of Colorado, entitled "AN ACT TO PROVIDE FOR THE CONSTRUCTION OF LOCAL IMPROVEMENTS IN CITIES OF ALL CLASSES," etc., approved April 8, 1893, being Chapter 151 of the Session Laws of 1899.

The successful bidder shall be required to furnish a bond in the sum of twenty thousand dollars ($20,000.00) with surety to be approved by the Mayor for the faithful performance of the contract.

To insure good faith on the part of the bidder, a cashier's check in the sum of One Thousand Dollars ($1,000.00) on some Bank in Rocky Ford, Colo., must accompany each bid, payable to the Treasurer of the said City of Rocky Ford, to be forfeited to the said City as liquidated damages in case the bid shall be accepted and the bidder shall fail, for 10 days after notice of the approval of the acceptance thereof by the City Council given personally or by mail to his address, to enter into the contract awarded him.

Said Ordinance and all Resolutions and proceedings in the premises and all the said details, plans and specifications may be seen and examined at the office of the City Clerk on and after the date hereof.

Dated at Rocky Ford this 21st day of September, 1904.

ROBERT M. POLLOCK,
13-2t Mayor.

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DEPARTMENT OF THE INTERIOR, Washington, D. C., August 30, 1904.—Sealed proposals, in duplicate, will be received by the Engineer U. S. Geological Survey, Lawton, Okla., up to 2 o'clock p. m., October 10, 1904, for the erection of nine public buildings in Oklahoma Territory, as follows: One court house and one jail building in each of the cities of Lawton, Comanche County; Anadarko, Caddo County, and Hobart, Kiowa County; one 8-room and one 4-room school building in the city of Lawton, and one 8-room school building in the city of Hobart; and also for moving into each of said jail buildings and properly installing in the same steel jail cells now located in temporary structures on the respective court house lots. Bids should be addressed to the Engineer, U. S. Geological Survey, Lawton, Okla., and will be publicly opened at 2 o'clock p. m., October 10, 1904, at the office of the U. S. Geological Survey, Lawton, Oklahoma. Specifications and forms of proposal may be obtained on application to the Engineer, U. S. Geological Survey, Lawton, Okla., or to Mauran, Russell & Garden, Chemical Building, St. Louis, Mo.; the latter will also furnish complete sets of plans upon receipt of draft or money order for $6.15. Each bid must be accompanied by a certified check, payable to the order of the Secretary of the Interior, for 2 per cent. of the aggregate amount thereof, as a guarantee that the bidder will, if successful, promptly execute a satisfactory contract and bond in the sum of 50 per cent. of the contract price for the faithful performance of the work. The cost of construction of the buildings and moving of prison cells is to be paid out of the funds derived from the sale of town lots in Lawton, Anadarko and Hobart, respectively, held in August, 1901, as provided by the acts of March 3, 1901, and June 30, 1902. The right is reserved to reject any and all bids, waive technical defects, and accept any part of any bid and reject any other part, if the interests of the Government require it. THOS. RYAN, Acting Secretary. 9-8t

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## TIMBER DRAINAGE CONSTRUCTION.

Office of Sewerage and Water Board,
602 Carondelet St., New Orleans,
Sept. 24, 1904.

Sealed proposals will be received up to 12 M., Wednesday, November 30th, 1904, for the construction of about 16,000 lineal feet of wood lined canals.

The work to be done will consist of approximately: 775,000 ft. B. M. creosoted pine lumber; 1,370,000 ft. B. M. yellow pine and cypress lumber; 143,000 lineal feet yellow pine piling; 145,000 cu. yds. excavation; 390 cu. yds. concrete; 21,000 pounds steel rods.

The above work will be divided into two contracts. A certified check on a New Orleans Bank of $1,500.00 for each contract must be deposited with each bid. A surety company bond for an amount equal to 25% of the gross amount of the contract will be required of the successful bidder.

Specifications and general plans may be obtained at the office of the Sewerage and Water Board, Drainage Department, Room No. 20, City Hall, after October 15th, 1904.

The right is reserved to reject all bids.

F. S. SHIELDS, Secretary.
GEO. G. EARL, Gen. Supt. 13-9t

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## PUMPING ENGINES.

Department of Public Works,
Chicago, September 16, 1904.

Sealed proposals will be received by the city of Chicago until 11 a. m., Thursday, November 17, 1904, at room 222 city hall, for designing, furnishing and erecting in each of the stations known as the Central Park Ave. and Springfield Ave. pumping stations, one (1) vertical triple expansion pumping engine, each having a capacity of forty (40) million U. S. gallons of water per twenty-four (24) hours, with all necessary appurtenances, complete, according to plans and specifications on file in the office of the Department of Public Works of said city, room 325 city hall.

Proposals must be made out upon blanks furnished at said office, and be addressed to said department, indorsed "Proposals for Two Forty (40) Million Gallon Pumping Engines," and be accompanied with ten thousand (10,000) dollars in money or a certified check for the same amount on some responsible bank located and doing business in the city of Chicago and made payable to the order of the commissioner of public works.

The commissioner of public works reserves the right to reject any or all bids.

No proposal will be considered unless the party offering it shall furnish evidence satisfactory to the commissioner of public works of his ability, and that he has the necessary facilities, together with sufficient pecuniary resources, to fulfill the conditions of the contract and specifications, provided such contract should be awarded to him.

Companies or firms bidding will give the individual names as well as the name of the firm with their address.

F. W. BLOCKI,
12-8t Commissioner of Public Works.

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## FLEXIBLE JOINT-PIPE.

Camden, N. J.

Sealed proposals will be received at Room 2, City Hall, Camden, N. J., until Tuesday evening, October 11th, 1904, at 8 o'clock, and then publicly opened, for furnishing flexible joint pipe for submerged pipe line, for laying submerged pipe across Cooper's Creek, combined proposals will also be received for furnishing and laying flexible joint pipe for submerged pipe line across Cooper's Creek. Plans and specifications can be seen at the office of the City Engineer, Camden, N. J., where blank forms of proposals can be obtained.

A certified check or cash to the amount of $1,000 shall accompany each proposal for furnishing pipe, $500 for laying pipe, and $1,500 for combined proposal for furnishing and laying pipe. Conditioned that the party making the bid will execute the contract.

The Committee reserves the right to reject any or all bids and to waive any defect or informality in any bid should it be deemed to the best interest of the City so to do.

Address proposals to
JOSEPH POTTER,
Chairman.
L. E. FARNHAM,
City Engineer. 13-1t

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OFFICE CONSTRUCTING Q. M., Burlington, Vt., September 26, 1904.—Sealed proposals in triplicate will be received until 12 M., October 11, 1904, for construction of a 150.000-gallon steel tank and trestle at Fort Ethan Allen, Vt. Information furnished on application. U. S. reserves the right to accept or reject any or all bids or any part thereof. Envelopes containing proposals to be endorsed "Proposals for steel tank and trestle" at Fort Ethan Allen, Vt. CAPTAIN T. B. LAMOREUX, Q. M. 13-2t

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## CAST-IRON PIPE.

Atlantic City, N. J.

Sealed proposals will be received by the Board of Water Commissioners of Atlantic City, N. J., until 3.30 p. m., October 11th, 1904, for furnishing:

50 tons (of 2,000 lbs.) of [illegible] pipe.
3 " " " " " [illegible] "
85 " " " " " [illegible] "
110 " " " " " [illegible] "
135 " " " " " [illegible] "
30,000 lbs. special castings

in accordance with specifications on file in the office of the Water Department, City Hall.

Each bid must be accompanied by a certified check, made payable to the Board of Water Commissioners of Atlantic City, N. J., for two hundred dollars, which check will be returned on execution of contract and filing of bond by the successful bidder. Should the successful bidder fail to execute contract and file bond within five days after notification of award his check will be forfeited and the award may be made to any other bidder.

As proper security for the performance of contract a bond acceptable to the Board, in the sum of four thousand ($4,000) dollars will be required, and this amount shall be inserted in the contract.

Specifications may be seen at the office of the Water Department.

The right is reserved to reject any or all bids.

LOUIS KUEHNLE,
RUFUS BOOYE,
JAMES PARKER,
Commissioners.
KENNETH ALLEN,
Engineer and Superintendent. 13-2t

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## 10,000 YDS. ASPHALT PAVING.

Tenders for the laying of an Asphalt Pavement (about 10,000 yards) on Queens Avenue will be received at this office (where plans and specifications may be seen) up to 3 o'clock on Monday, 3d October.

Contractors may tender for any brand of asphalt.

ORMSBY GRAYDON,
City Engineer,
13-1t London, Ont.

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## GATE VALVES.

Atlantic City, N. J

Sealed proposals will be received by the Board of Water Commissioners of Atlantic City, N. J., until 3.30 p. m., October 11th, 1904, for furnishing:

54 4-inch gate valves
15 6- " " "
13 8- " " "
8 10- " " "
13 12- " " "
1 14- " " "

in accordance with specifications on file in the office of the Water Department, City Hall.

Each bid must be accompanied by a certified check, made payable to the Board of Water Commissioners of Atlantic City, N. J., for two hundred dollars, which check will be returned on execution of contract and filing of bond by the successful bidder. Should the successful bidder fail to execute contract and file bond within five days after notification of award his check will be forfeited and the award may be made to any other bidder.

As proper security for the performance of contract a bond acceptable to the Board, in the sum of eight hundred ($800) dollars will be required, and this amount shall be inserted in the contract.

Specifications may be seen at the office of the Water Department.

The right is reserved to reject any or all bids.

LOUIS KUEHNLE,
RUFUS BOOYE,
JAMES PARKER,
Commissioners.
KENNETH ALLEN,
Engineer and Superintendent. 13-2t

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OFFICE OF THE COMMISSION, Washington, D. C., Sept. 28, 1904.—Sealed proposals will be received at the office of the Supervisor of Construction, 14th and E Streets, N. W., Washington, D. C., until 2 o'clock P. M. on October 27, 1904, and then opened, for furnishing cut stone for the Municipal Building. Information on application to Captain Chester Harding, Corps of Engineers, U. S. A., Supervisor of Construction, Municipal Building, Washington, D. C. Bids must be accompanied by certified check for fifteen thousand ($15,000) dollars. LESLIE M. SHAW, Secretary of the Treasury; HENRY B. F. MACFARLAND, HENRY L. WEST, JOHN BIDDLE, Commissioners of the District of Columbia, Municipal Building Commission. 13-4t

For other Proposal Advertisements see pages 35, 36, 37. of Advertisements and Construction News page 163, 164.